ORDER NO. VRD0006020C3

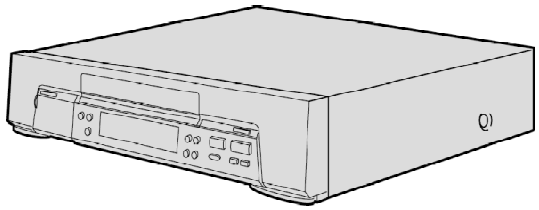
Service Manual

Video Cassette Recorder

Panasonic VHS PAL/NTSC

NV-SJ400A / NV-SJ200A

Z-MECHANISM



SPECIFICATIONS

SPECIFICATIONS

ITEM	SPECIFICATION	ITEM	SPECIFICATION
POWER	SOURCE: 220-240 V AC 50/60 Hz	AUDIO	HEAD: 1 Stationary head (Normal-mono only)
	CONSUMPTION: 16 watts COMSUMPTION WHEN IN STANDBY MODE: Approx.6W		INPUT: AUDIO IN (AV1, AV2: NV-SJ400A) Connector More than -6dBV (500 mV), 47 kΩ
RECORDING SYSTEM	2 rotary heads, helical scanning system		OUTPUT: AUDIO OUT (AV1) Connector (Phono type) -6 dBV (500mV), Less than 1kΩ
	PAL/ NTSC	TAPE SPEED	SP: 23.39 mm/s (PAL), 33.35mm/s (NTSC) LP: 11.695 mm/s (PAL) EP: 7.796mm/s (PAL), 11.12mm/s (NTSC) Record/Playback Time: SP: 4 hours with 240 min. type tape LP: 8 hours with 240 min. type tape EP: 12 hours with 240 min. type tape FF/REW Time: 60 sec. with 180 min. type tape
TV TUNER SYSTEM	VHF: CH0-CH12 (PAL B) UHF: CH28-CH69 (PAL G) CATV: 45 MHz-470 MHz (PAL B) (Australia) VHF: CH1-CH11 (PAL B) UHF: CH21-CH69 (PAL G) CATV: 44 MHz-470 MHz (PAL B) (Newzealand)	OPERATING TEMPERATURE	5°C - 40°C
RF OUT SYSTEM	UHF: CH28-CH69 (PAL G) 71 ± 3 dBμ, 75 Ω closed (Australia) UHF: CH21-CH69 (PAL G) 71 ± 3 dBμ, 75 Ω closed (Newzealand)	OPERATING HUMIDITY	35% - 80%
VIDEO	HEADS: 4 rotary heads (NV-SJ400A) 2 rotary heads (NV-SJ200A) 1 pair for recording and playback (L-R heads) 1 pair for trick play (L'-R' heads: NV-SJ400A)	DIMENSIONS	470 (W)×87(H)×283(D) mm
		WEIGHT	3.5 kg
	INPUT: VIDEO IN (AV1, AV2: NV-SJ400A) Connector 1.0 Vp-p, 75 Ω terminated	STANDARD ACCESSORIES	1 pc. DIN-RF Cable 1 pc. Infra-rad Remote Controller
	OUTPUT: VIDEO OUT (AV1) Connector 1.0 Vp-p, 75 Ω terminated		

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

1. INTRODUCTION

This service manual contains technical information which will allow service personnel to understand and service this model.
If the circuit is changed or modified, this information will be followed by supplementary service manual to be filed with original service manual.

Note:

1. **Adjustment procedures, Disassembly Procedures and Assembly Procedures for Mechanism Chassis are separate volume from this service manual. / Please refer to the service manual for Z-Mechanism Chassis. (Order No. VRD9802005C2)**
2. **The Model No. is indicated on the Schematic Diagram and Circuit Board Diagrams as follows.**

Model No.	Indication Mark
NV-SJ400A	(SJ400)
NV-SJ200A	(SJ200)

2. GENERAL DESCRIPTIONS

2.1. SERVICE INFORMATION

2.1.1. MICROPROCESSOR RESET

When the Microprocessor IC6001, MAIN C.B.A. and/or Back-up Battery B6001 are replaced, read following procedure carefully and proceed it.

Reasons:
There is a RAM in the IC6001, which is backing up:

1. **TV Tuning Data.**
2. **PG shifter Adjustment Data**
3. **Option Setting Data**

When IC6001, MAIN C.B.A. and/or Back-up Battery B6001 are replaced, all above listed data become not available.
These data are backing up by using the power source of:
AC connected: AC Power source
AC Disconnected: Back-up Battery B6001

Method:
Before replacing IC6001, MAIN C.B.A. and/or B6001:

1. **Take a note that stored TV broadcasts channels.(Because , its user may store TV broadcasts by manually other than "Auto Tuning" operation and it is also erased.)**

After replacing IC6001, MAIN C.B.A. and/or B6001:

1. **Turn on the VCR.**
2. **Connect a jumper wire between TL7509 and TL7510 for 1 second to reset IC6001.**

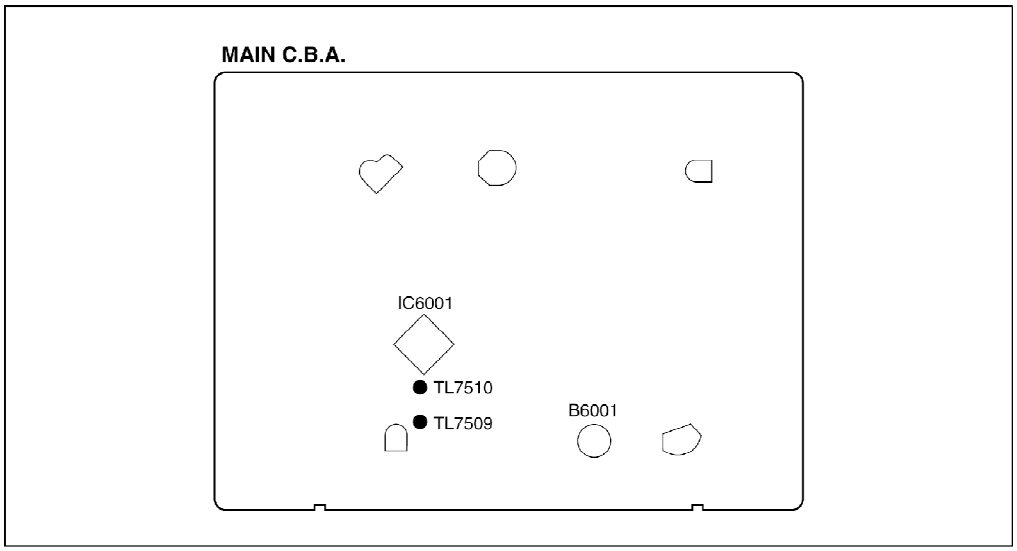
After resetting IC6001:

1. **Store TV broadcasts channels by Auto/Manual Tuning using the On Screen Display according to note which taken before replacing IC6001, MAIN C.B.A. and/or B6001.**
2. **Set the Direct Rec function to OFF using On Screen Display if necessary. / (Because, Direct Rec function is set automatically to ON after resetting IC6001.) / [Direct Rec Function] / OFF: Normally set at this position. / ON: This settingenables Direct Rec. / AV1 Input(A1) becomes exclusive channel for Direct Rec.**
3. **Perform the PG SHIFTER ADJUSTMENT. / (Refer to the Electrical Adjustment Procedures.)**

Note:

1. **It should be performed before tuning.**
2. **Do not cut off the power source during reset.**

Fig. S1



2.1.2. CYLINDER UNIT REPLACEMENT

1. CYLINDER UNIT REPLACEMENT

A. Remove the mechanism unit from MAIN C.B.A./Chassis by referring“SECTION 3. Disassembly Method”.

B. Remove the 3 screws (A) of the CYLINDER UNIT with a screw driver.

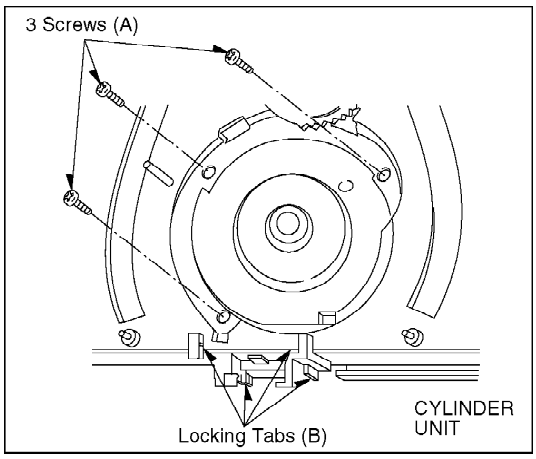
C. Unlock the 4 locking tabs (B) and disconnect the Cylinder fiexible card from the FPC Holder.

D. Remove the CYLINDER UNIT.

CAUTION:

Handle the Cylinder flexible card with care. When it damaged, you should replace whole Cylinder unit.

Fig. S2

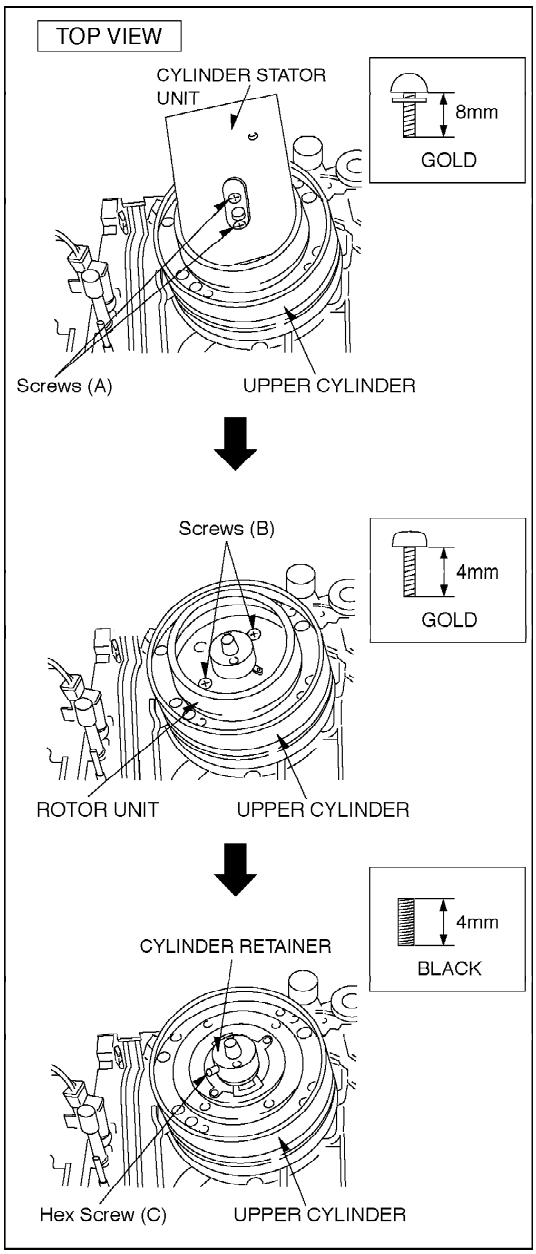


2. UPPER CYLINDER DISASSEMBLY

A. Remove 2 screws (A).

B. Remove the Cylinder Stator Unit.
C. Remove 2 screws (B).
D. Remove the Cylinder Rotor Unit.
E. Loose Hex screw (C) (1.5 mm) and remove the CYLINDER RETAINER.
F. Remove the Upper Cylinder.

Fig. S3



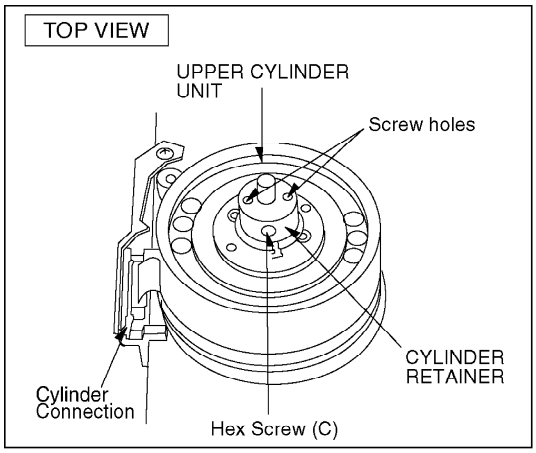
3. UPPER CYLINDER ASSEMBLY

When reassembling, perform the steps in the reverse order.

Notes:

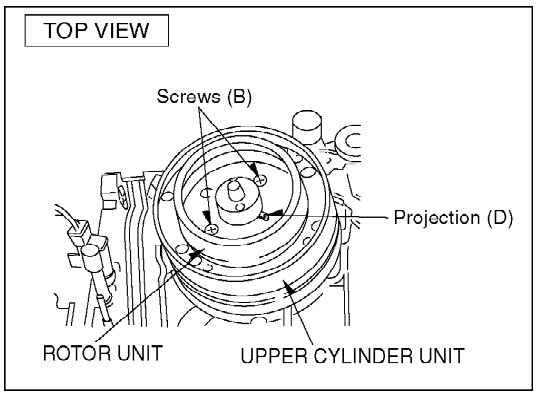
1. **Install the Cylinder Retainer so that the 2 holes on top of the Cylinder Retainer are at right angles with the Cylinder Connection.**
2. **Tighten the Hex screw (C) (1.5 mm) while pressing down on top of the Cylinder Retainer.**

Fig. S4



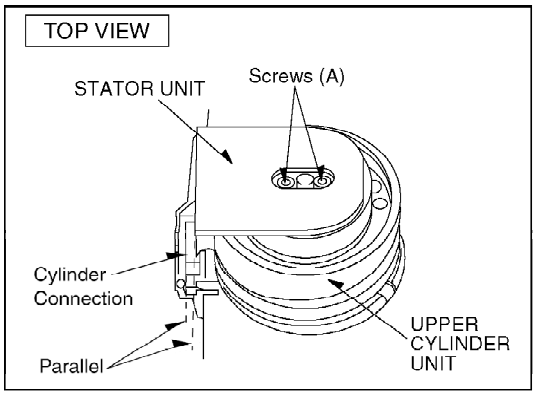
3. **Install the Cylinder Rotor Unit so that the inner hole of the Cylinder Rotor Unit fits to the small projection (D) on top of the Upper Cylinder.**
4. **Tighten 2 screws (B).**

Fig. S5



5. **Install the Cylinder Stator Unit so that the rear side of the Cylinder Stator C.B.A. is parallel with the Cylinder Connection.**
6. **Tighten 2 screws (A).**

Fig. S6

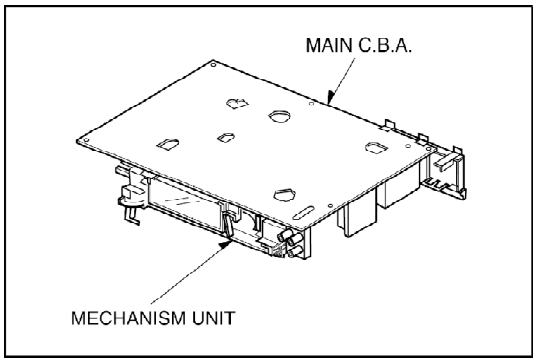


7. Confirm the PG SHIFTER ADJUSTMENT with the alignment tape (PAL: VFJ8125H3F) and adjust it if necessary.

2.1.3. CHECKING OF MAIN C.B.A.

When servicing the MAIN C.B.A., take out the MAIN C.B.A. and mechanism from the frame and turn over.

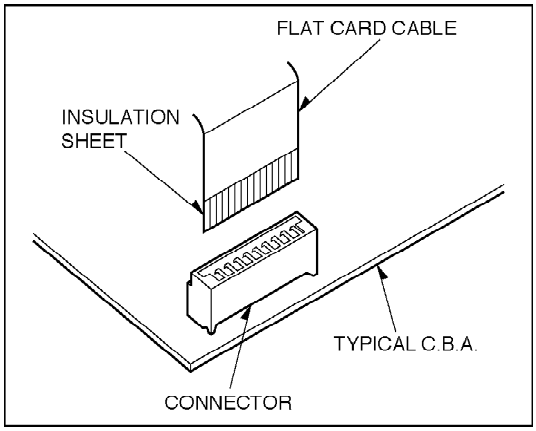
Fig. S7



2.1.4. FLAT CARD CABLE INSTALLATION

When installing the Flat Card Cable on the connector, install the Flat Card Cable with the cable contacts facing the connector contacts.

Fig. S8



2.2. REMOVAL OF CASSETTE TAPE

There are 2 ways to remove a cassette tape.

1. Service Information Display Operation

A. Press the FF and EJECT keys simultaneosly for 3 seconds and set the Service Mode 7.

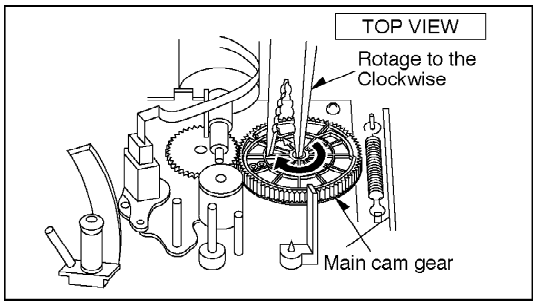
B. Press STOP key in order to rotate the Loading Motor for unloading operation. (Pay an attention of tape slack)

2. Manual Operation

A. Disconnect the AC Mains Lead and remove the Top Panel.

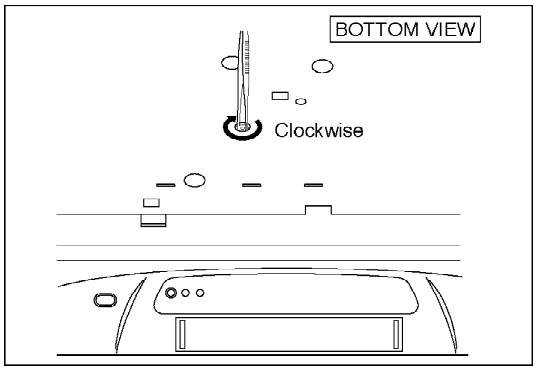
B. Rotate the Main Cam Gear clockwise until the Loading Posts move to fully unloaded position as shown inFig. S9. (Tape is remaining)

Fig. S9



C. Rotate the Capstan Motor clockwise from the bottom side to take up the tape.

Fig. S10



D. Rotate the Main Cam Gear clockwise until the cassette tape is ejected.

2.3. INTRODUCTION OF VIDEO HEAD CLEANING CASSETTE / (POLISHING TYPE)

1. We are pleased to introduce Panasonic Video Head Cleaning

Cassette,VFK0923FT [for service purposes] andVFK0923FSE [for end users] for all VHS/SVHS VCP and VCR.

2. **These cleaning cassettes are exclusive removing the hard and sticky clogging on video heads.**
3. **These improve the efficiency of video head cleaning service and shortening cleaning time for end users.**

VFK0923FT (For Service usage)	
Type of Cassette	Full VHS Cassette
Cleaning Time	10 Seconds/Time
Tape Length	20 m
Usability in a Path	180 Times

VFK0823FSE (For end users)	
Type of Cassette	Full VHS Cassette
Cleaning Time	10 Seconds/Time
Tape Length	3.34 m
Usability in a Path	30 Times

Note:

The tape material itself is the same in both types.

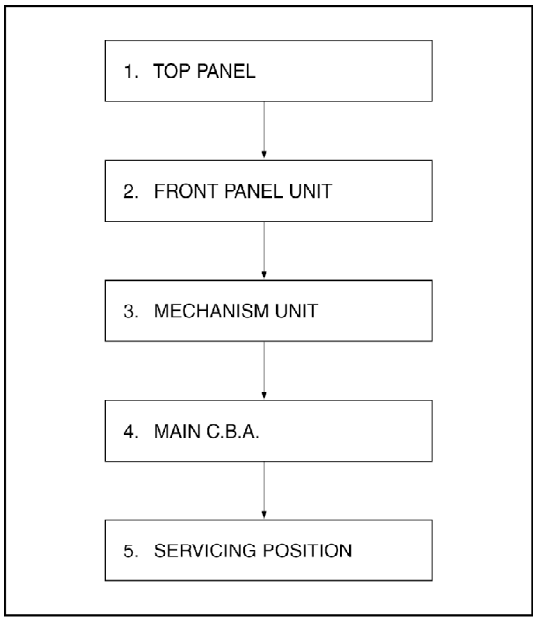
3. ADJUSTMENT PROCEDURES

3.1. DISASSEMBLY METHOD

3.1.1. DISASSEMBLY FLOW CHART

This flow chart indicates disassembly steps of the cabinet parts and the circuit boards in order to find the necessary items for servicing.
When reassembling, perform the steps in the reverse order.

Fig. D1

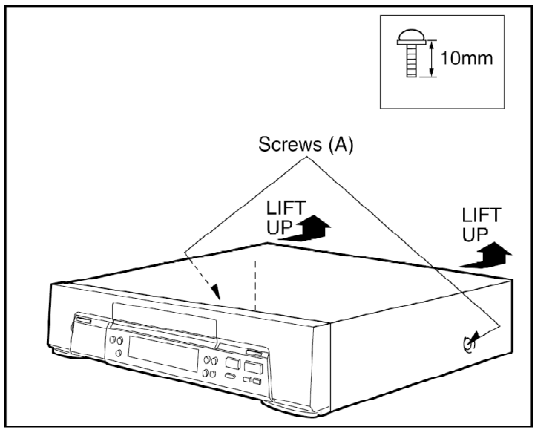


3.1.2. DETAIL OF DISASSEMBLY METHOD

1. REMOVAL OF THE TOP PANEL

Remove	**2 Screws (A)**

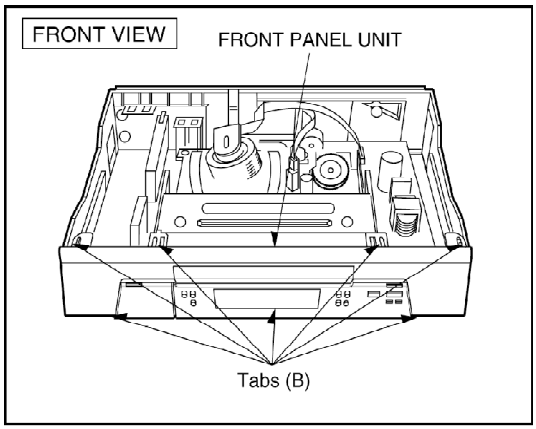
Fig.D2



2. REMOVAL OF THE FRONT PANEL UNIT

Unlock	**7 Tabs (B)**

Fig. D3



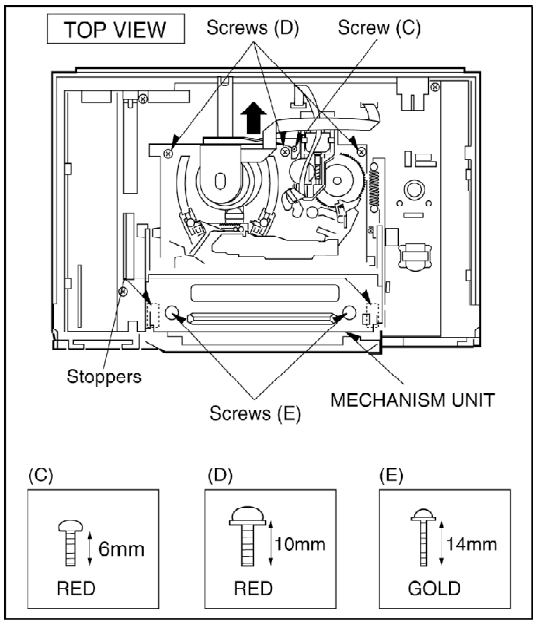
3. REMOVAL OF THE MECHANISM UNIT

Remove	**Screw (C)**
Remove	**3 Screws (D)**
Remove	**2 Screws (E)**

Note:

1. **Keep pressing 2 stoppers on Cassette Holder Plate and Press Cassette Holder Plate to the rear.**
2. **Remove the Mechanism Unit after bend the Cylinder Shield in the direction of the arrow.**

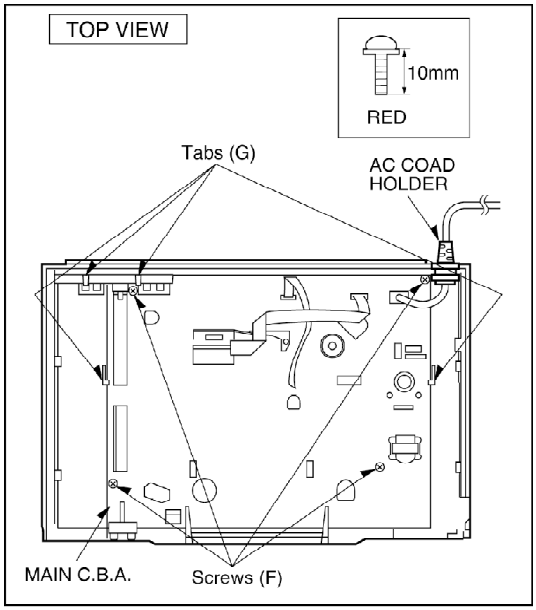
Fig. D4



4. REMOVAL OF THE MAIN C.B.A.

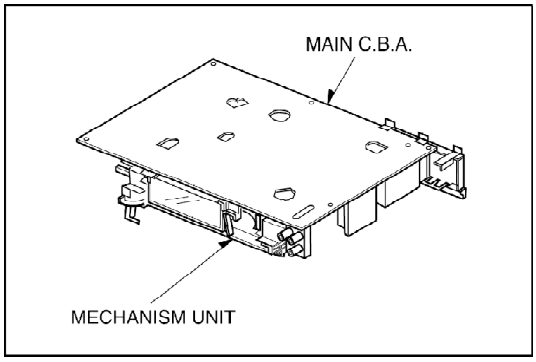
Remove	**AC CORD HOLDER**
Remove	**4 Screws (F)**
Unlock	**4 Tabs (G)**

Fig. D5



5. SERVICING POSITION

Fig. D6



3.2. MECHANICAL ADJUSTMENT PROCEDURES

Refer to the Service Manual for Z-Mechanism Chassis. / (Order No. VRD9802005C2)

3.3. ELECTRICAL ADJUSTMENT PROCEDURES

3.3.1. PG SHIFTER ADJUSTMENT / (AUTOMATIC)

PROCEDURES	FIP Display
Press the FF and EJECT keys simultaneously for 3 seconds.	
Press the FF and EJECT keys simultaneously more twice.	
Press the EJECT key for 3 seconds.	
Insert the Alignment Tape. (PAL: VFJ81215H3F) (NTSC: VFM8080HQFP)	
This adjustment is automatically started. (During the adjustment, the picture will be appeared on the monitor.)	
When this Adjustment is terminated, the following operation will be activated. -Adjustment completed: The tape will be ejected. -Adjustment incompleted: "F2*" is indicated on the FIP.Check the Servo/ System Control circuit and Cylinder Unit.	
To release Service Mode, press the FF and EJECT keys. simultaneously 6 times until the normal indication on the FIP.	

Fig. E1

4. ABBREVIATIONS

5. INPUT/OUTPUT CHART

5.1. INPUT/OUTPUT CHART FOR IC6001

Fig. MP1

Fig. MP2

Fig. MP3

6. WAVEFORM TABLE

7. BLOCK DIAGRAMS

7.1. SYSTEM CONTROL& SERVO BLOCK DIAGRAM

7.2. LUMINANCE& CHROMINANCE BLOCK DIAGRAM

8. SCHEMATIC DIAGRAMS

8.1. POWER TRANSFORMER SCHEMATIC DIAGRAM

8.2. POWER SUPPLY/RF SECTION IN MAIN SCHEMATIC DIAGRAM

8.3. TIMER SECTION IN MAIN SCHEMATIC DIAGRAM

8.4. SYSTEM CONTROL& SERVO SECTION IN MAIN SCHEMATIC DIAGRAM

8.5. LUMINANCE& CHROMINANCE/AUDIO SECTION IN MAIN SCHEMATIC DIAGRAM

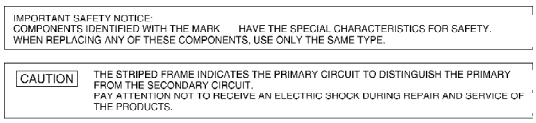
8.6. HEAD AMP SECTION IN MAIN SCHEMATIC DIAGRAM

8.7. CYLINDER STATOR UNIT SCHEMATIC DIAGRAM

8.8. CAPSTAN UNIT SCHEMATIC DIAGRAM

9. CIRCUIT BOARD ASSEMBLIES

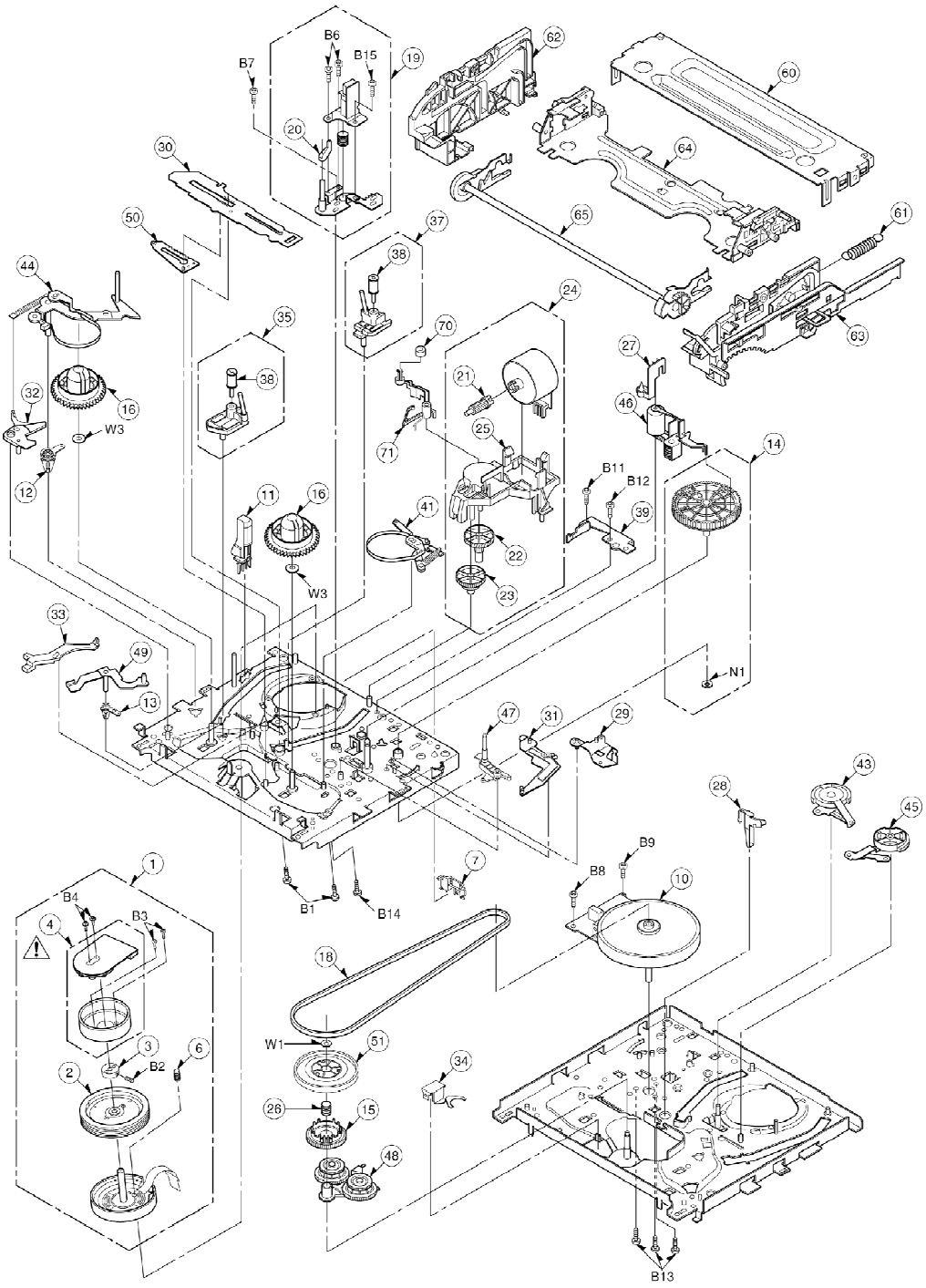
9.1. MAIN C.B.A.


IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.
CAUTION
THE STRIPED FRAME INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT.
PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.

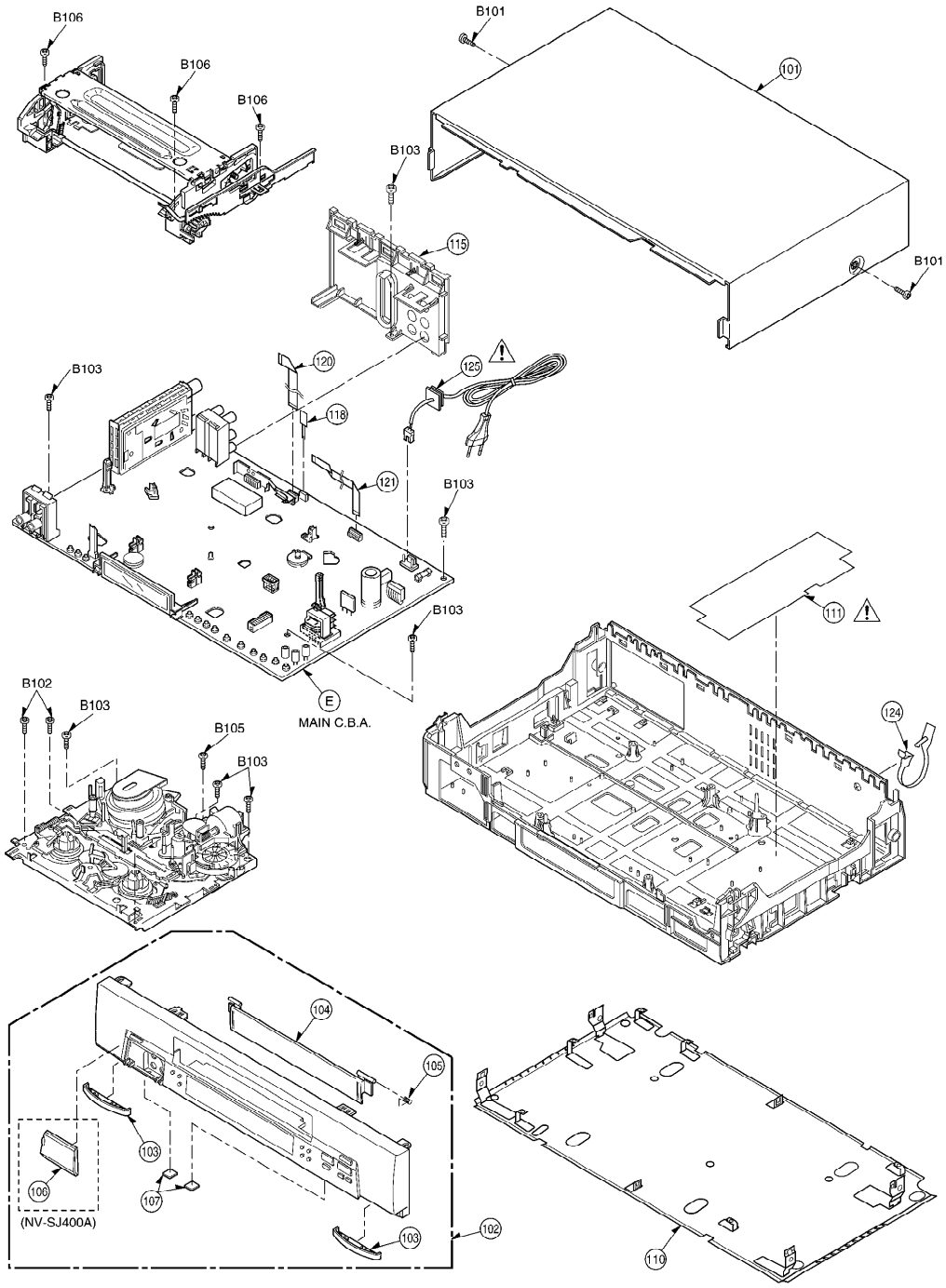
9.2. CYLINDER STATOR UNIT

10. EXPLODED VIEWS

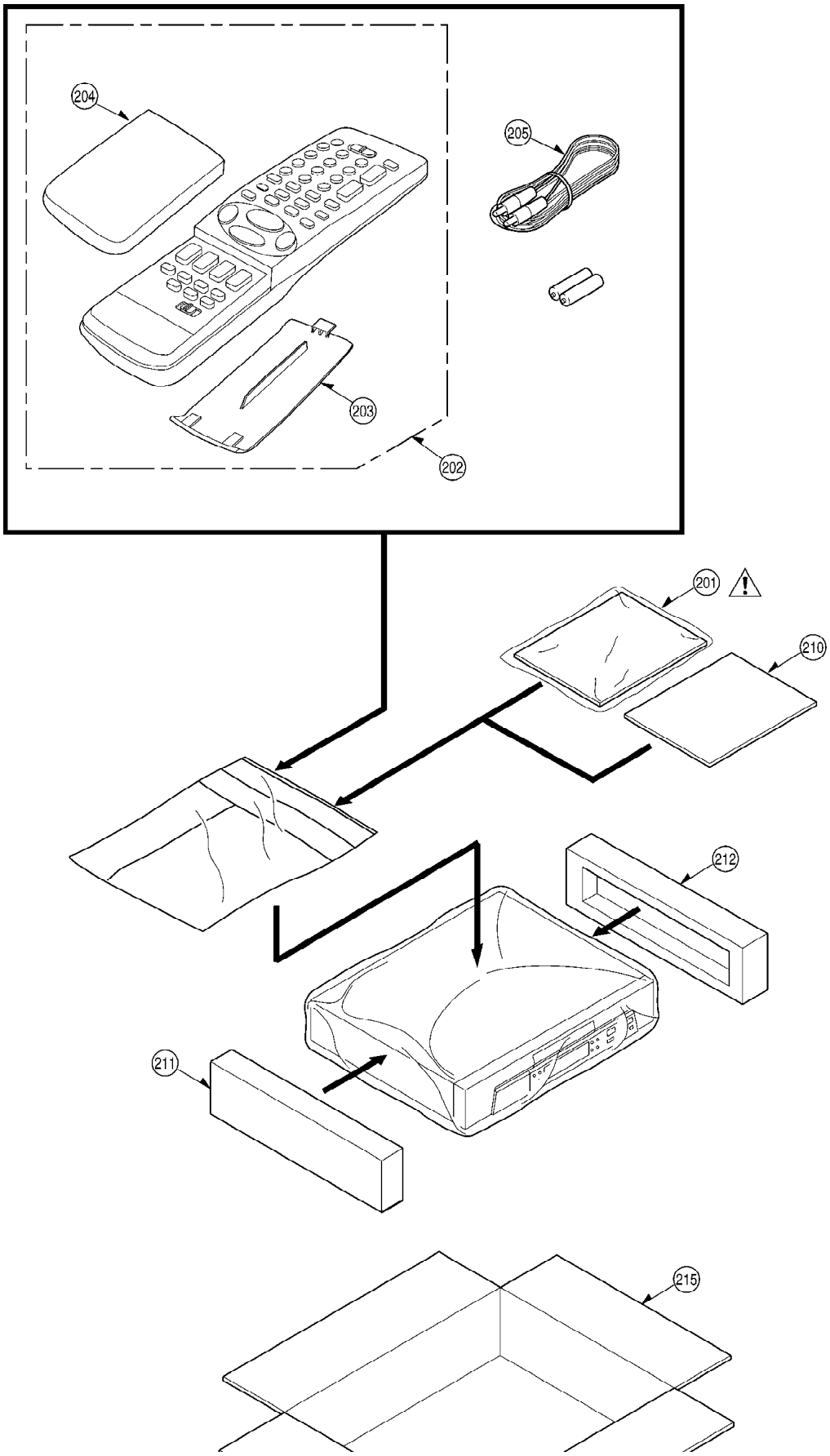
10.1. CHASSIS PARTS SECTION



10.2. CASING PARTS SECTION



10.3. PACKING PARTS SECTION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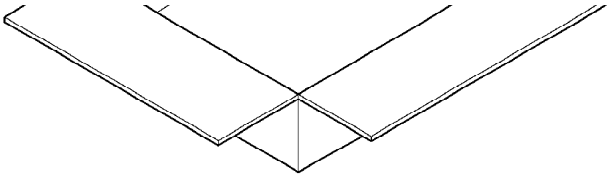


11. REPLACEMENT PARTS LIST

11.1. CHASSIS PARTS SECTION PARTS LIST

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
1 (1)	VEG1550	CYLINDER UNIT	1	NV-SJ400A
1 (1)	VEG1549	CYLINDER UNIT	1	[SUPPLIED FROM MAV]
				NV-SJ200A
2 (1)	VXP2052	UPPER CYLINDER UNIT	1	NV-SJ400A
2 (1)	VXP1972	UPPER CYLINDER UNIT	1	[SUPPLIED FROM MAV]
				NV-SJ200A
3 (1)	VDB1256	CYLINDER RETAINER	1	
4 (1)	VEM0715	CYLINDER MOTOR UNIT	1	⚠
6 (1)	VXS0135	EARTH BRUSH UNIT	1	
7 (1)	VMD3795	FLAT CABLE HOLDER	1	NV-SJ400A
7 (1)	VMD3796	FLAT CABLE HOLDER	1	[SUPPLIED FROM MAV]
				NV-SJ200A
10 (1)	VEK9069	CAPSTAN UNIT	1	
11 (1)	VBS0155	FE HEAD	1	
12 (1)	VDB1431	TENSION ARM BOSS	1	
13 (1)	VDB1460	SUPPLY BRAKE ARM BOSS	1	
14 (1)	VDG1220KIT	MAIN CAM GEAR	1	
15 (1)	VDG1221	CONVERSION GEAR	1	
16 (1)	VDR0350	SUPPLY REEL TABLE	2	
18 (1)	VDV0382	CAPSTAN BELT	1	
19 (1)	VED0412	A/C HEAD UNIT	1	
20 (1)	VMX2656	P4 CAP	1	
21 (1)	VDG1217	WORM GEAR	1	
22 (1)	VDG1218	WORM WHEEL GEAR	1	
23 (1)	VDG1219	CENTRE GEAR	1	
24 (1)	VEM0604	LOADING MOTOR UNIT	1	
25 (1)	VMD2619	MOTOR BRACKET	1	
26 (1)	VMB3045	CONVERSION GEAR SPRING	1	
27 (1)	VMD2620	OPENER PIECE	1	
28 (1)	VMD2738	LED PRISM	1	
29 (1)	VML3165	DRIVE RACK ARM	1	
30 (1)	VML3166	MAIN LEVER	1	
31 (1)	VML3167	DRIVE MAIN LEVER ARM	1	
32 (1)	VML3172	SUPPLY SPRING ARM	1	
33 (1)	VML3176	CONVERSION LEVER A	1	
34 (1)	VML3177	CONVERSION LEVER B	1	
35 (1)	VXA6040	INCLINED BASE (S) UNIT	1	
37 (1)	VXA5854	INCLINED BASE (T) UNIT	1	
38 (1)	VXP1891	ROLLER POST	2	
39 (1)	VMA9672	SUPPORT ANGLE	1	

Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
41 (1)	VXL2667	TAKE UP BRAKE ARM UNIT	1	
43 (1)	VXL2670	TAKE UP LOADING ARM UNIT	1	
44 (1)	VXL2798	TENSION ARM UNIT	1	
45 (1)	VXL2672	SUPPLY LOADING ARM UNIT	1	
46 (1)	VXL2785	PINCH ARM UNIT	1	
47 (1)	VXL2996	P5 ARM UNIT	1	
48 (1)	VXL2792	IDLER ARM UNIT	1	
49 (1)	VXL2733	SUPPLY BRAKE ARM UNIT	1	
50 (1)	VXL2747	LOADING RACK UNIT	1	
51 (1)	VXP2035	CENTRE CLUTCH UNIT	1	
60 (1)	VMA9516	TOP PLATE	1	
61 (1)	VMB3047	CONNECTION SPRING	1	
62 (1)	VMD3379	SIDE PLATE (L)	1	
63 (1)	VXA6540	SIDE PLATE (R) UNIT	1	
64 (1)	VXA5746	CASSETTE HOLDER UNIT	1	
65 (1)	VXP1730	MAIN SHAFT UNIT	1	
70 (1)	VDP1668-K	CLEANER ROLLER	1	
71 (1)	VML3164	CLEANER ARM	1	
B1 (1)	VHD1117	SCREW	2	
B2 (1)	VHD0842	SCREW	1	
B3 (1)	VHD0843	SCREW	2	
B4 (1)	VHD0844	SCREW	2	
B6 (1)	VHD1066	SCREW	2	
B7 (1)	VHD1044	SCREW	1	
B8 (1)	VHD1060	SCREW	1	
B9 (1)	VHD1071	SCREW	1	
B11 (1)	XTS26+6F	SCREW	1	
B12 (1)	XTN26+6F	SCREW	1	
B13 (1)	XTN26+7J	SCREW	3	
B14 (1)	VHD1095	SCREW	1	
B15 (1)	VHD1185	SCREW	1	
N1 (1)	VHN0311	PUSH NUT	1	
W1 (1)	VMX2208	WASHER	1	
W3 (1)	VMX3022	WASHER	2	

11.2. CASING PARTS SECTION PARTS LIST

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
101 (2)	VGM1695	TOP PANEL	1	
102 (2)	VYP7808	FRONT PANEL UNIT	1	NV-SJ400A
102 (2)	VYP7811	FRONT PANEL UNIT	1	[SUPPLIED FROM MAV]
				NV-SJ200A
103 (2)	VKA0192	LEG	2	
104 (2)	VKF3251	BLINDER PANEL	1	
105 (2)	VMB2521	BLINDER SPRING	1	
106 (2)	VKF3252	DOOR	1	NV-SJ400A
107 (2)	RKA0072	FOOT	2	
110 (2)	VKU0573	BOTTOM PLATE	1	
111 (2)	VMZ3048	BARRIER	1	⚠
115 (2)	VJH1140	ANT JACK PLATE	1	
118 (2)	EYHS10Y2	DEW SENSOR	1	
120 (2)	VWJ1281	FLAT CARD CABLE (6P)	1	P4001-A/C HEAD
121 (2)	VWJ1436	FLAT CARD CABLE (9P)	1	P2501-P2901
124 (2)	VJF0139	AC CORD CLAMPER	1	
125 (2)	VJA1137	AC CORD	1	⚠
B101 (2)	XTW3+10TFC	SCREW	2	
B102 (2)	VHD0168	SCREW	2	
B103 (2)	VHD1092	SCREW	7	
B105 (2)	XTV26+6FR	SCREW	1	
B106 (2)	XTV26+8FR	SCREW	3	

11.3. PACKING PARTS SECTION PARTS LIST

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
201 (3)	VQT8773	OPERATING INSTRUCTIONS	1	NV-SJ400A ⚠
		(ENGLISH)		
201 (3)	VQT8781	OPERATING INSTRUCTIONS	1	[SUPPLIED FROM MAV] ⚠
		(ENGLISH)		NV-SJ200A
202 (3)	EUR571759	REMOTE CONTROLLER	1	NV-SJ400A
202 (3)	EUR571757	REMOTE CONTROLLER	1	[SUPPLIED FROM MAV]
				NV-SJ200A
203 (3)	UR57EC679F	BATTERY COVER	1	
204 (3)	UR57CV680C	DOOR PANEL	1	
205 (3)	VJA1124	DIN RF CABLE	1	[SUPPLIED FROM MAV]
210 (3)	VPN5368	ACCESSORIES PAD	1	[SUPPLIED FROM MAV]
211 (3)	VPN5359	CUSHION (L)	1	[SUPPLIED FROM MAV]
212 (3)	VPN5360	CUSHION (R)	1	[SUPPLIED FROM MAV]
215 (3)	VPG0F39	PACKING	1	NV-SJ400A
215 (3)	VPG0E96	PACKING	1	[SUPPLIED FROM MAV]
				NV-SJ200A
		SERVICE FIXTURES& TOOLS		
.	VFJ8125H3F	VHS ALIGNMENT TAPE (PAL)	1	
.	VFK0335	RETAINING RING REMOVER	1	
.		(3mm/4mm)		
.	VFK0329	POST ADJUSTMENT SCREWDRIVER	1	
.	VFK0326	HEX WRENCH SET	1	
.	VFK0132	BACK TENSION METER	1	
.	VFK27	HEAD CLEANING STICK	1	

Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
.	VFK1024	MOLYTONE GREASE	1	
.	VFK0330	FINE ADJUSTMENT GEAR DRIVER	1	
.	VFK1301	SILICONE GREASE	1	

11.4. ELECTRICAL PARTS LIST

Note: 1. Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE: Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components, use only the same type.
3. Unless otherwise specified
All resistors are in OHMS, K=1,000 OHMS. All capacitors are in MICROFARADS (uf), P=uuF.
4. The P.C. Board units marked width "■" show below the main assembled parts.
5. The marking (RTL) indicates the retention time is limited for this item.
After the discontinuation of this assembly in production, it will no longer be available.

Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
■	VEP06D47J	MAIN C.B.A.	1	(RTL)
				NV-SJ400A
■	VEP06D47R	MAIN C.B.A.	1	[SUPPLIED FROM MAV]
				(RTL)
				NV-SJ200A
■	----------	CAPSTAN DRIVE C.B.A.	1	INCLUDED IN
				CAPSTAN UNIT (VEK9069).
■	VEP06D47J	MAIN C.B.A.		(RTL) NV-SJ400A
B6001	CR2354-1GUF	LITHIUM BATTERY	1	
C1001	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1002	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1004	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C1005	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C1007	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1008	VCEA1CCB470	E.CAPACITOR 16V 47U	1	
C1011	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C1013	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1014	ECA1EHG470	E.CAPACITOR 25V 47U	1	
C1120	ECKMNA331MBV	CERAMIC CAPACITOR	1	⚠
C1121	ECKMNA331MBV	CERAMIC CAPACITOR	1	⚠
C1122	ECQU2A104MVA	P.CAPACITOR 250V 0.1U	1	⚠
C1124	ECKMNA102MEV	CERAMIC CAPACITOR	1	⚠
C1132	ECQU2A104MVA	P.CAPACITOR 250V 0.1U	1	⚠
C1140	ECEC2GG680	E.CAPACITOR 400V 68U	1	
C1150	ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
C1151	ECCZ3A101KGE	C.CAPACITOR 1KV 100P	1	
C1152	ECKD2H103PU	C.CAPACITOR 500V 0.01U	1	
C1153	ECA1VGE470X	E.CAPACITOR 35V 47U	1	
C1180	ECEA0JGE331	E.CAPACITOR 6.3V 330U	1	
C1181	ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
C1200	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C1201	ECQB1H822JF	P.CAPACITOR 50V 8200P	1	
C1230	ECKD2H101KB	C.CAPACITOR 500V 100P	1	
C1231	ECEA1HGE470	E.CAPACITOR 50V 47U	1	
C1232	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1250	ECKD2H101KB	C.CAPACITOR 500V 100P	1	
C1251	VCEA1EJH821	E.CAPACITOR 25V 820U	1	
C1252	VCEA1EJC331	E.CAPACITOR 25V 330U	1	
C1260	ECKD2H101KB	C.CAPACITOR 500V 100P	1	
C1261	VCEA1AJH122	E.CAPACITOR 10V 1200U	1	
C1262	VCEA1AJC331	E.CAPACITOR 10V 330U	1	
C1271	ECEA1VGE101	E.CAPACITOR 35V 100U	1	
C1272	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1281	EEUFA1A391	E.CAPACITOR 10V 390U	1	
C2002	VCEA1HCB4R7	E.CAPACITOR 50V 4.7U	1	
C2003	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C2005	ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C2006	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2007	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	

Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
C2008	ECUM1C474KBN	C.CAPACITOR CH 16V 0.47U	1	
C2009	VCEA1HCB3R3	E.CAPACITOR 50V 3.3U	1	
C2010	ECUM1H392KBN	C.CAPACITOR CH 50V 3900P	1	
C2012	ECUM1H681JCN	C.CAPACITOR CH 50V 680P	1	
C2013	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2014	ECUM1E563KBN	C.CAPACITOR CH 25V 0.056U	1	
C2015	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2501	ECUM1E563KBN	C.CAPACITOR CH 25V 0.056U	1	
C2502	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C2503	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C2504	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C2505	ECUM1H473ZFN	C.CAPACITOR CH 50V 0.047U	1	
C2506	ECUM1E563KBN	C.CAPACITOR CH 25V 0.056U	1	
C2507	ECUM1E683KBN	C.CAPACITOR CH 25V 0.068U	1	
C2508	ECUM1C154KBN	C.CAPACITOR CH 16V 0.15U	1	
C2509	ECUM1C154KBN	C.CAPACITOR CH 16V 0.15U	1	
C2510	ECUM1C154KBN	C.CAPACITOR CH 16V 0.15U	1	
C2511	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C2512	VCEA1ECB470	E.CAPACITOR 25V 47U	1	
C3001	ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C3002	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C3003	ECUM1H821JCN	C.CAPACITOR CH 50V 820P	1	
C3004	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3005	ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C3006	VCEA1CCB100	E.CAPACITOR 16V 10U	1	
C3007	ECUM1E563KBN	C.CAPACITOR CH 25V 0.056U	1	
C3008	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C3009	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C3010	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3011	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C3012	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C3013	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3014	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C3015	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C3016	VCEA1HCBR47	E.CAPACITOR 50V 0.47U	1	
C3017	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C3019	VCEA1CCB470	E.CAPACITOR 16V 47U	1	
C3020	VCEA0JEC471	E.CAPACITOR 6.3V 470U	1	
C3022	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C3023	ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C3024	ECUM1H561JCN	C.CAPACITOR CH 50V 560P	1	
C3025	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C3027	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3028	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3033	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C3034	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3035	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3036	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3037	ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C3038	ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C3039	VCEA1HCB010	E.CAPACITOR 50V 1U	1	
C3040	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3044	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C3045	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	

Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
C3046	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3048	VCEA1HCB3R3	E.CAPACITOR 50V 3.3U	1	
C3049	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C3050	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3051	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C3052	VCEA1HCB010	E.CAPACITOR 50V 1U	1	
C3053	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C3054	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3056	ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C3057	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3501	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3502	ECEA0JKS470	E.CAPACITOR 6.3V 47U	1	
C3503	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3504	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3505	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3506	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C3507	ECUM1C474KBN	C.CAPACITOR CH 16V 0.47U	1	
C3508	ECUM1C474KBN	C.CAPACITOR CH 16V 0.47U	1	
C3509	ECUM1C474KBN	C.CAPACITOR CH 16V 0.47U	1	
C3510	ECUM1C474KBN	C.CAPACITOR CH 16V 0.47U	1	
C4005	VCEA1HCBR33	E.CAPACITOR 50V 0.33U	1	
C4006	VCEA1HCBR33	E.CAPACITOR 50V 0.33U	1	
C4007	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C4008	VCEA1HCBR33	E.CAPACITOR 50V 0.33U	1	
C4009	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C4011	VCEA1CCB100	E.CAPACITOR 16V 10U	1	
C4012	ECUM1H273KBN	C.CAPACITOR CH 50V 0.027U	1	
C4013	ECUM1H682KBN	C.CAPACITOR CH 50V 6800P	1	
C4024	ECUM1H822KBN	C.CAPACITOR CH 50V 8200P	1	
C4025	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C4026	ECUM1H272KBN	C.CAPACITOR CH 50V 2700P	1	
C4027	ECUM1H122JCN	C.CAPACITOR CH 50V 1200P	1	
C4028	VCEA1HCB010	E.CAPACITOR 50V 1U	1	
C4029	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C4030	ECUM1H822KBN	C.CAPACITOR CH 50V 8200P	1	
C4031	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C4037	ECUM1H152KBN	C.CAPACITOR CH 50V 1500P	1	
C4038	ECUX1H223KBN	C.CAPACITOR CH 50V 0.022U	1	
C4039	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C4040	ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
C4041	ECQB1H223JF	P.CAPACITOR 50V 0.022U	1	
C4043	ECUM1H273KBN	C.CAPACITOR CH 50V 0.027U	1	
C4045	ECUM1H222JCN	C.CAPACITOR CH 50V 2200P	1	
C4046	ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C6001	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C6002	ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C6003	ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C6004	ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C6005	ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C6006	ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C6007	ECUM1H080DCN	C.CAPACITOR CH 50V 8P	1	
C6008	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C6010	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C6011	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	

Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
C6013	VCEA0JEC471	E.CAPACITOR 6.3V 470U	1	
C6015	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6020	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7502	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7503	ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C7504	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7505	VCEA1HCB100	E.CAPACITOR 50V 10U	1	
C7601	ECUM1C224ZFN	C.CAPACITOR CH 16V 0.22U	1	
C7605	VCEA1HCB100	E.CAPACITOR 50V 10U	1	
C7606	ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C7607	ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C7608	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7609	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7611	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7612	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7613	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7701	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7702	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7705	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C7706	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7707	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C7708	ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
D1001	MA4051N-M	DIODE	1	
D1002	1SS254	DIODE	1	
D1004	MA4130N-L	DIODE	1	
D1005	MA4051N-M	DIODE	1	
D1006	1SS254	DIODE	1	
D1140	S1WBA80-4062	BRIDGE DIODE	1	
D1150	11EQS04	DIODE	1	
D1151	MA7300B	DIODE	1	
D1152	AP01C	DIODE	1	
D1153	MA185	DIODE	1	
D1180	1SS254	DIODE	1	
D1200	1SS254	DIODE	1	
D1201	1SS254	DIODE	1	
D1230	ERA22-04	DIODE	1	
D1250	RL2ZP	DIODE	1	
D1261	21DQ06FC4	DIODE	1	
D1270	ERA22-04	DIODE	1	
D1280	11EQS06	DIODE	1	
D2001	1SS254	DIODE	1	
D2002	1SS254	DIODE	1	
D2003	1SS254	DIODE	1	
D2501	MA723VT	DIODE	1	
D6001	1SS254	DIODE	1	
D6002	1SS254	DIODE	1	
D6003	MA700A	DIODE	1	
D6004	RB441P	DIODE	1	
D6005	RB441P	DIODE	1	
D6006	1SS254	DIODE	1	
D6007	SIR505S	DIODE	1	
D6008	1SS254	DIODE	1	
D7501	1SS254	DIODE	1	
D7502	MA4220N-H	DIODE	1	

Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
D7601	MA4300N-M	DIODE	1	
D7702	1SS254	DIODE	1	
DP7501	VSL0543	DISPLAY TUBE	1	
F1101	XBA2C16TB0	FUSE	1	⚠
IC1001	PQ20VB2E	IC	1	
IC1150	STRF6552	IC	1	
IC1200	TL431CLP	IC	1	
IC2501	AN3811NK	IC	1	
IC3001	AN3531NFBS	IC	1	
IC3501	AN3368SB	IC	1	
IC6001	MN101D02GMC	IC	1	
IC6002	RPI354N	IC	1	
IC6003	RPI354N	IC	1	
IC6004	PNA4611M08VT	PHOTO DIODE	1	
IC6005	RN5VS42CA	IC	1	
IC7501	M35502AFP	IC	1	
IP1001	UNH000300A	IC PROTECTOR	1	⚠
IP1002	UNH000300A	IC PROTECTOR	1	⚠
IP1003	VSF0015A025	IC PROTECTOR	1	⚠
IP1004	UNH000300A	IC PROTECTOR	1	⚠
IP1280	VSF0015A10	FUSE	1	⚠
JK3001	VJJ0681	PIN JACK 2-PIN	1	
JK3002	VJJ0679	PIN JACK 4-PIN	1	
K3502	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K4001	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K4006	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K4009	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K6002	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K7601	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
L1120	ELF15N003A	LINE FILTER	1	⚠
L1121	ELF15N003A	LINE FILTER	1	⚠
L1230	ELESE101KA	COIL 100UH	1	
L1250	VLQ0655K220	COIL 22UH	1	
L1260	VLQ0655K220	COIL 22UH	1	
L1270	ELESE101KA	COIL 100UH	1	
L2501	VLQ0599J680	COIL 68UH	1	
L3001	VLQ0599J680	COIL 68UH	1	
L3002	VLQ0599J390	COIL 39UH	1	
L3003	VLQ0599J680	COIL 68UH	1	
L3004	VLQ0599J680	COIL 68UH	1	
L3005	VLQ0599J121	COIL 120UH	1	
L3006	VLQ0599J680	COIL 68UH	1	
L3007	VLQ0599J151	COIL 150UH	1	
L3009	VLQ0599J220	COIL 22UH	1	
L3011	VLQ0599J680	COIL 68UH	1	
L3012	VLQ0599J680	COIL 68UH	1	
L3501	VLQ0599J680	COIL 68UH	1	
L4002	VLQEL07F153J	COIL 15MH	1	
L4004	VLQ0599J121	COIL 120UH	1	
L7603	VLQ0599J330	COIL 33UH	1	
L7604	VLQ0599J330	COIL 33UH	1	
L7605	VLQ0599J330	COIL 33UH	1	
L7701	VLQ0599J680	COIL 68UH	1	

[illegible]	[illegible]	[illegible]	[illegible]	

Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
LB1150	VLP0056	FERRITE BEAD	1	
LB3501	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB3502	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB3503	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB3504	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB4002	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB4004	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB4008	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB6001	VLP0147	COIL	1	
P1102	VJP2073	CONNECTOR (MALE) 3P	1	⚠
P2001	VJS3837A002	CONNECTOR (FEMALE) 2P	1	
P2002	VJP3835A012	CONNECTOR (MALE) 12P	1	
P2501	VJS3537A009G	CONNECTOR (FEMALE) 9P	1	
P3501	VJS3537A010G	CONNECTOR (FEMALE) 10P	1	
P4001	VJS3537A006G	CONNECTOR (FEMALE) 6P	1	
P4002	VJS3837A002	CONNECTOR (FEMALE) 2P	1	
P6001	VJS3905	DEW SENSOR CONNECTOR	1	
Q1001	2SD602A	TRANSISTOR	1	
Q1003	2SD1996	TRANSISTOR	1	
Q1004	2SD1996	TRANSISTOR	1	
Q1005	2SD1996	TRANSISTOR	1	
Q1007	2SD1996	TRANSISTOR	1	
Q1180	2SB1030A	TRANSISTOR	1	
Q1181	2SD1996	TRANSISTOR	1	
Q1200	PS2561L2-1WL	TRANSISTOR	1	⚠
Q3001	2SB709A	TRANSISTOR	1	
Q4003	2SD1149	TRANSISTOR	1	
Q4004	2SD601A	TRANSISTOR	1	
Q4005	2SD602A-R	TRANSISTOR	1	
Q4006	2SB1321	TRANSISTOR	1	
Q6001	PNB2301MBV	TRANSISTOR	1	
Q6002	PNB2301MAV	TRANSISTOR	1	
Q7701	2SB709A	TRANSISTOR	1	
QR1001	MUN2112	TRANSISTOR	1	
QR3003	MUN2213	TRANSISTOR	1	
QR3004	MUN2213	TRANSISTOR	1	
QR3008	MUN2213	TRANSISTOR	1	
QR3011	MUN2213	TRANSISTOR	1	
QR3501	MUN2212	TRANSISTOR	1	
QR3502	MUN2212	TRANSISTOR	1	
QR4001	MUN2111	TRANSISTOR	1	
QR4002	MUN2211	TRANSISTOR	1	
QR4004	MUN2212	TRANSISTOR	1	
QR4005	UN2215	TRANSISTOR-RESISTOR	1	
QR4006	UN2215	TRANSISTOR-RESISTOR	1	
QR4502	UN2215	TRANSISTOR-RESISTOR	1	
QR4505	MUN2113	TRANSISTOR	1	
QR6001	MUN2211	TRANSISTOR	1	
R1001	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R1002	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R1003	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R1004	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R1005	ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R1006	ERDS2TJ102	C.RESISTOR 1/4W 1K	1	

R1000	ERJC2FG102	CHIP RESISTOR 1/4W 1K	1	

Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
R1007	ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R1008	ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R1009	ERJ6GMYG683	M.RESISTOR CH 1/10W 68K	1	
R1010	ERJ6GMYG433	M.RESISTOR CH 1/10W 43K	1	
R1011	ERJ6GMYG752	M.RESISTOR CH 1/10W 7.5K	1	
R1013	ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R1120	ERC12AGM334	S.RESISTOR 1/2W 330K	1	⚠
R1150	ERX1SJR51	M.RESISTOR 1W 0.51	1	
R1151	ERDS2FJ331	C.RESISTOR 1/4W 330	1	
R1152	ERDS2FJ102	C.RESISTOR 1/4W 1K	1	
R1153	ERDS2FJ123	C.RESISTOR 1/4W 12K	1	
R1154	ERDS2FJ123	C.RESISTOR 1/4W 12K	1	
R1155	ERDS2FJ123	C.RESISTOR 1/4W 12K	1	
R1156	ERDS2FJ123	C.RESISTOR 1/4W 12K	1	
R1157	ERDS2FJ123	C.RESISTOR 1/4W 12K	1	
R1158	ERDS2FJ123	C.RESISTOR 1/4W 12K	1	
R1159	ERDS2FJ474	C.RESISTOR 1/4W 470K	1	
R1160	ERDS2FJ564	C.RESISTOR 1/4W 560K	1	
R1161	ERG1SJ223	M.RESISTOR 1W 22K	1	
R1162	ERG1SJ223	M.RESISTOR 1W 22K	1	
R1163	ERDS1TJ470	C.RESISTOR 1/2W 47	1	
R1180	ERDS2FJ222	C.RESISTOR 1/4W 2.2K	1	
R1181	ERDS2FJ222	C.RESISTOR 1/4W 2.2K	1	
R1182	ERDS2TJ101	C.RESISTOR 1/4W 100	1	
R1183	ERDS2TJ104	C.RESISTOR 1/4W 100K	1	
R1184	ERDS2FJ105	C.RESISTOR 1/4W 1M	1	
R1185	ERDS2FJ152	C.RESISTOR 1/4W 1.5K	1	
R1186	ERDS2FJ105	C.RESISTOR 1/4W 1M	1	
R1200	ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R1201	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R1202	ERJ6GMYG222	M.RESISTOR CH 1/10W 2.2K	1	
R1203	ERJ6GMYG272	M.RESISTOR CH 1/10W 2.7K	1	
R1204	ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R1205	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R1206	ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
R2001	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2002	ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R2003	ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R2004	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R2005	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R2006	ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R2007	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R2501	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2502	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2503	ERDS2TJ330	C.RESISTOR 1/4W 33	1	
R2504	ERDS2TJ330	C.RESISTOR 1/4W 33	1	
R2505	ERDS2TJ330	C.RESISTOR 1/4W 33	1	
R2506	ERDS2TJ1R2	C.RESISTOR 1/4W 1.2	1	
R2507	ERDS2TJ1R5	C.RESISTOR 1/4W 1.5	1	
R2508	ERDS2TJ331	C.RESISTOR 1/4W 330	1	
R3001	ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3002	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3003	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R3004	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	

Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
R3005	ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	
R3006	ERJ6GMYJ684	M.RESISTOR CH 1/10W 680K	1	
R3007	ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R3008	ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R3009	ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3010	ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R3013	ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R3014	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3015	ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R3016	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3017	ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3022	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R3023	ERDS2TJ271	C.RESISTOR 1/4W 270	1	
R3026	ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3027	ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3028	ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R3030	ERJ6GMYG301	M.RESISTOR CH 1/10W 300	1	
R3031	ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R3043	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R3044	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R3045	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3046	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R3047	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R3048	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3050	ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R3052	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R3055	ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R3501	ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R3502	ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R3504	ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R3505	ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R4002	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R4004	ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R4005	ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R4006	ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R4008	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R4009	ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R4010	ERJ6GMYK225	M.RESISTOR CH 1/10W 2.2M	1	
R4011	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R4014	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R4015	ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R4016	ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R4017	ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R4019	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R4021	ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R4028	ERJ6GMYJ163	M.RESISTOR CH 1/10W 16K	1	
R4029	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4030	ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R4031	ERJ6GMYJ241	M.RESISTOR CH 1/10W 240	1	
R4032	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4033	ERJ6GMYJ334	M.RESISTOR CH 1/10W 330K	1	
R4037	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R4038	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4039	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	

Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
R4040	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R4041	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4042	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4043	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R4044	ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R4047	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R4508	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6001	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6002	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6003	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6004	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6005	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R6007	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R6008	ERJ6GMYJ334	M.RESISTOR CH 1/10W 330K	1	
R6010	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6011	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6012	ERJ6GMYG393	M.RESISTOR CH 1/10W 39K	1	
R6013	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6014	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6015	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6016	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6017	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6018	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R6019	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6021	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6022	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6023	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R6024	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R6025	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R6026	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R6027	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R6028	ERDS2TJ181	C.RESISTOR 1/4W 180	1	
R6029	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6031	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R6032	ERDS2TJ121	C.RESISTOR 1/4W 120	1	
R6033	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R6034	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6035	ERJ6GMYJ244	M.RESISTOR CH 1/10W 240K	1	
R7501	ERJ6GMYJ823	M.RESISTOR CH 1/10W 82K	1	
R7504	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R7505	ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R7506	ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R7507	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R7508	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R7509	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R7510	ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R7512	ERDS2TJ150	C.RESISTOR 1/4W 15	1	
R7514	ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R7515	ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R7516	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7517	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7518	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R7519	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R7520	ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	

Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
R7521	ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R7522	ERJ6GMYJ563	M.RESISTOR CH 1/10W 56K	1	
R7601	ERDS2TJ331	C.RESISTOR 1/4W 330	1	
R7602	ERDS2TJ331	C.RESISTOR 1/4W 330	1	
R7603	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R7604	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R7605	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7606	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R7607	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R7609	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7701	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7704	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R7708	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R7709	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
S2001	VSS0565	MODE SWITCH	1	
S6001	VES0834	S-TAB SWITCH	1	
S7501	EVQPC105K	SWITCH	1	
S7502	EVQ11L07B	SWITCH	1	
S7505	EVQ11L07B	SWITCH	1	
S7506	EVQ11L07B	SWITCH	1	
S7507	EVQ11L07B	SWITCH	1	
S7508	EVQ11404M	SWITCH	1	
S7509	EVQ11404M	SWITCH	1	
S7510	EVQ11L07B	SWITCH	1	
S7511	EVQ11L07B	SWITCH	1	
S7512	EVQ11L07B	SWITCH	1	
S7513	EVQ11L07B	SWITCH	1	
S7514	EVQ11L07B	SWITCH	1	
T1150	ETE28K131AZ	SWITCHING TRANSFORMER	1	⚠
T4002	VLT0895	TRANSFORMER	1	
TU7601	ENG57810G1	TUNER	1	⚠
X3001	VSX0162	CRYSTAL OSCILLATOR	1	
X3002	VSX0160	CRYSTAL OSCILLATOR	1	
X6001	VSX1022	CRYSTAL OSCILLATOR	1	
X6002	VSX1021	CRYSTAL OSCILLATOR	1	
.	TP00351-51	FUSE HOLDER	2	
.	VSC4998	HA ANGLE	1	
■	VEP06D47R	MAIN C.B.A.		[SUPPLIED FROM MAV]
				(RTL) NV-SJ200A
B6001	CR2354-1GUF	LITHIUM BATTERY	1	
C1001	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1002	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1004	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C1005	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C1007	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1008	VCEA1CCB470	E.CAPACITOR 16V 47U	1	
C1011	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C1013	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1014	ECA1EHG470	E.CAPACITOR 25V 47U	1	
C1120	VCK0286B331	CERAMIC CAPACITOR	1	⚠
C1121	VCK0286B331	CERAMIC CAPACITOR	1	⚠
C1122	ECQU2A104MVA	P.CAPACITOR 250V 0.1U	1	⚠

Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
C1124	VCK0286E102	CERAMIC CAPACITOR	1	⚠
C1132	ECQU2A104MVA	P.CAPACITOR 250V 0.1U	1	⚠
C1140	ECEC2GG680	E.CAPACITOR 400V 68U	1	
C1150	ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
C1151	ECCZ3A101KGE	C.CAPACITOR 1KV 100P	1	
C1152	ECKD2H103PU	C.CAPACITOR 500V 0.01U	1	
C1153	ECA1VGE470X	E.CAPACITOR 35V 47U	1	
C1180	ECEA0JGE331	E.CAPACITOR 6.3V 330U	1	
C1181	ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
C1200	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C1201	ECQB1H822JF	P.CAPACITOR 50V 8200P	1	
C1230	ECKD2H101KB	C.CAPACITOR 500V 100P	1	
C1231	ECEA1HGE470	E.CAPACITOR 50V 47U	1	
C1232	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1250	ECKD2H101KB	C.CAPACITOR 500V 100P	1	
C1251	VCEA1EJH821	E.CAPACITOR 25V 820U	1	
C1252	VCEA1EJC331	E.CAPASITOR 25V 330U	1	
C1260	ECKD2H101KB	C.CAPACITOR 500V 100P	1	
C1261	VCEA1AJH122	E.CAPACITOR 10V 1200U	1	
C1262	VCEA1AJC331	E.CAPACITOR 10V 330U	1	
C1271	ECEA1VGE101	E.CAPACITOR 35V 100U	1	
C1272	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1281	EEUFA1A391	E.CAPACITOR 10V 390U	1	
C2002	VCEA1HCB4R7	E.CAPACITOR 50V 4.7U	1	
C2003	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C2005	ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C2006	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2007	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C2008	ECUM1C474KBN	C.CAPACITOR CH 16V 0.47U	1	
C2009	VCEA1HCB3R3	E.CAPACITOR 50V 3.3U	1	
C2010	ECUM1H392KBN	C.CAPACITOR CH 50V 3900P	1	
C2012	ECUM1H681JCN	C.CAPACITOR CH 50V 680P	1	
C2013	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2014	ECUM1E563KBN	C.CAPACITOR CH 25V 0.056U	1	
C2015	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2501	ECUM1E563KBN	C.CAPACITOR CH 25V 0.056U	1	
C2502	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C2503	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C2504	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C2505	ECUM1H473ZFN	C.CAPACITOR CH 50V 0.047U	1	
C2506	ECUM1E563KBN	C.CAPACITOR CH 25V 0.056U	1	
C2507	ECUM1E683KBN	C.CAPACITOR CH 25V 0.068U	1	
C2508	ECUM1C154KBN	C.CAPACITOR CH 16V 0.15U	1	
C2509	ECUM1C154KBN	C.CAPACITOR CH 16V 0.15U	1	
C2510	ECUM1C154KBN	C.CAPACITOR CH 16V 0.15U	1	
C2511	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C2512	VCEA1ECB470	E.CAPACITOR 25V 47U	1	
C3001	ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C3002	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C3003	ECUM1H821JCN	C.CAPACITOR CH 50V 820P	1	
C3004	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3005	ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C3006	VCEA1CCB100	E.CAPACITOR 16V 10U	1	
C3007	ECUM1E563KBN	C.CAPACITOR CH 25V 0.056U	1	

[illegible]	[illegible]	[illegible]	[illegible]	

Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
C3008	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C3009	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C3010	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3011	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C3012	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C3013	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3014	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C3016	VCEA1HCBR47	E.CAPACITOR 50V 0.47U	1	
C3017	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C3019	VCEA1CCB470	E.CAPACITOR 16V 47U	1	
C3020	VCEA0JEC471	E.CAPACITOR 6.3V 470U	1	
C3022	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C3023	ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C3024	ECUM1H561JCN	C.CAPACITOR CH 50V 560P	1	
C3025	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C3027	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3028	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3033	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C3034	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3035	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3036	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3037	ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C3038	ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C3039	VCEA1HCB010	E.CAPACITOR 50V 1U	1	
C3040	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3044	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C3045	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C3046	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3048	VCEA1HCB3R3	E.CAPACITOR 50V 3.3U	1	
C3049	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C3050	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3051	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C3052	VCEA1HCB010	E.CAPACITOR 50V 1U	1	
C3053	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C3054	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3056	ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C3057	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3501	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3502	ECEA0JKS470	E.CAPACITOR 6.3V 47U	1	
C3504	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3505	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3506	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C3509	ECUM1C474KBN	C.CAPACITOR CH 16V 0.47U	1	
C3510	ECUM1C474KBN	C.CAPACITOR CH 16V 0.47U	1	
C4006	VCEA1HCBR33	E.CAPACITOR 50V 0.33U	1	
C4007	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C4008	VCEA1HCBR33	E.CAPACITOR 50V 0.33U	1	
C4009	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C4011	VCEA1CCB100	E.CAPACITOR 16V 10U	1	
C4012	ECUM1H273KBN	C.CAPACITOR CH 50V 0.027U	1	
C4013	ECUM1H682KBN	C.CAPACITOR CH 50V 6800P	1	
C4024	ECUM1H822KBN	C.CAPACITOR CH 50V 8200P	1	
C4025	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C4026	ECUM1H272KBN	C.CAPACITOR CH 50V 2700P	1	

Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
C4027	ECUM1H122JCN	C.CAPACITOR CH 50V 1200P	1	
C4028	VCEA1HCB010	E.CAPACITOR 50V 1U	1	
C4029	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C4030	ECUM1H822KBN	C.CAPACITOR CH 50V 8200P	1	
C4031	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C4037	ECUM1H152KBN	C.CAPACITOR CH 50V 1500P	1	
C4038	ECUX1H223KBN	C.CAPACITOR CH 50V 0.022U	1	
C4039	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C4040	ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
C4041	ECQB1H223JF	P.CAPACITOR 50V 0.022U	1	
C4043	ECUM1H273KBN	C.CAPACITOR CH 50V 0.027U	1	
C4045	ECUM1H222JCN	C.CAPACITOR CH 50V 2200P	1	
C4046	ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C6001	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C6002	ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C6003	ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C6004	ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C6005	ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C6006	ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C6007	ECUM1H080DCN	C.CAPACITOR CH 50V 8P	1	
C6008	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C6010	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C6011	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C6013	VCEA0JEC471	E.CAPACITOR 6.3V 470U	1	
C6015	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6020	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7502	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7503	ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C7504	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7505	VCEA1HCB100	E.CAPACITOR 50V 10U	1	
C7601	ECUM1C224ZFN	C.CAPACITOR CH 16V 0.22U	1	
C7605	VCEA1HCB100	E.CAPACITOR 50V 10U	1	
C7606	ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C7607	ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C7608	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7609	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7611	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7612	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7613	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7701	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7702	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7705	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C7706	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7707	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C7708	ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
D1001	MA4051N-M	DIODE	1	
D1002	1SS254	DIODE	1	
D1004	MA4130N-L	DIODE	1	
D1005	MA4051N-M	DIODE	1	
D1006	1SS254	DIODE	1	
D1140	S1WBA80-4062	BRIDGE DIODE	1	
D1150	11EQS04	DIODE	1	
D1151	MA7300B	DIODE	1	
D1152	AP01C	DIODE	1	

Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
D1153	MA185	DIODE	1	
D1180	1SS254	DIODE	1	
D1200	1SS254	DIODE	1	
D1201	1SS254	DIODE	1	
D1230	ERA22-04	DIODE	1	
D1250	RL2ZP	DIODE	1	
D1261	21DQ06FC4	DIODE	1	
D1270	ERA22-04	DIODE	1	
D1280	11EQS06	DIODE	1	
D2001	1SS254	DIODE	1	
D2002	1SS254	DIODE	1	
D2003	1SS254	DIODE	1	
D2501	MA723VT	DIODE	1	
D6003	MA700A	DIODE	1	
D6004	RB441P	DIODE	1	
D6005	RB441P	DIODE	1	
D6006	1SS254	DIODE	1	
D6007	SIR505S	DIODE	1	
D6008	1SS254	DIODE	1	
D7501	1SS254	DIODE	1	
D7502	MA4220N-H	DIODE	1	
D7601	MA4300N-M	DIODE	1	
D7702	1SS254	DIODE	1	
DP7501	VSL0543	DISPLAY TUBE	1	
F1101	XBA2C16TB0	FUSE	1	⚠
IC1001	PQ20VB2E	IC	1	
IC1150	STRF6552	IC	1	
IC1200	TL431CLP	IC	1	
IC2501	AN3811NK	IC	1	
IC3001	AN3531NFBS	IC	1	
IC3501	AN3365SB	IC	1	
IC6001	MN101D02GMC	IC	1	
IC6002	RPI354N	IC	1	
IC6003	RPI354N	IC	1	
IC6004	PNA4611M08VT	PHOTO DIODE	1	
IC6005	RN5VS42CA	IC	1	
IC7501	M35502AFP	IC	1	
IP1001	UNH000300A	IC PROTECTOR	1	⚠
IP1002	UNH000300A	IC PROTECTOR	1	⚠
IP1003	VSF0015A025	IC PROTECTOR	1	⚠
IP1004	UNH000300A	IC PROTECTOR	1	⚠
IP1280	VSF0015A10	FUSE	1	⚠
JK3002	VJJ0679	PIN JACK 4-PIN	1	
K3501	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K4001	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K4006	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K4009	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K6002	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K7601	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
L1120	VLF1498G0R3	LINE FILTER	1	[SUPPLIED FROM MAV] ⚠
L1121	VLF1498G0R3	LINE FILTER	1	[SUPPLIED FROM MAV] ⚠
L1230	ELESE101KA	COIL 100UH	1	
L1250	VLQ0655K220	COIL 22UH	1	

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
L1260	VLQ0655K220	COIL 22UH	1	
L1270	ELESE101KA	COIL 100UH	1	
L2501	VLQ0599J680	COIL 68UH	1	
L3001	VLQ0599J680	COIL 68UH	1	
L3002	VLQ0599J390	COIL 39UH	1	
L3003	VLQ0599J680	COIL 68UH	1	
L3004	VLQ0599J680	COIL 68UH	1	
L3005	VLQ0599J121	COIL 120UH	1	
L3006	VLQ0599J680	COIL 68UH	1	
L3007	VLQ0599J151	COIL 150UH	1	
L3009	VLQ0599J220	COIL 22UH	1	
L3011	VLQ0599J680	COIL 68UH	1	
L3012	VLQ0599J680	COIL 68UH	1	
L3501	VLQ0599J680	COIL 68UH	1	
L4002	VLQEL07F153J	COIL 15MH	1	
L4004	VLQ0599J121	COIL 120UH	1	
L7603	VLQ0599J330	COIL 33UH	1	
L7604	VLQ0599J330	COIL 33UH	1	
L7605	VLQ0599J330	COIL 33UH	1	
L7701	VLQ0599J680	COIL 68UH	1	
LB1150	VLP0056	FERRITE BEAD	1	
LB3503	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB3504	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB4004	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB6001	VLP0147	COIL	1	
P1102	VJP2073	CONNECTOR (MALE) 3P	1	⚠
P2001	VJS3837A002	CONNECTOR (FEMALE) 2P	1	
P2002	VJP3835A012	CONNECTOR (MALE) 12P	1	
P2501	VJS3537A009G	CONNECTOR (FEMALE) 9P	1	
P3501	VJS3537A005G	CONNECTOR (FEMALE) 5P	1	
P4001	VJS3537A006G	CONNECTOR (FEMALE) 6P	1	
P4002	VJS3837A002	CONNECTOR (FEMALE) 2P	1	
P6001	VJS3905	DEW SENSOR CONNECTOR	1	
Q1001	2SD602A	TRANSISTOR	1	
Q1003	2SD1996	TRANSISTOR	1	
Q1004	2SD1996	TRANSISTOR	1	
Q1005	2SD1996	TRANSISTOR	1	
Q1007	2SD1996	TRANSISTOR	1	
Q1180	2SB1030A	TRANSISTOR	1	
Q1181	2SD1996	TRANSISTOR	1	
Q1200	PS2561L2-1WL	TRANSISTOR	1	⚠
Q3001	2SB709A	TRANSISTOR	1	
Q4003	2SD1149	TRANSISTOR	1	
Q4004	2SD601A	TRANSISTOR	1	
Q4005	2SD602A-R	TRANSISTOR	1	
Q4006	2SB1321	TRANSISTOR	1	
Q6001	PNB2301MBV	TRANSISTOR	1	
Q6002	PNB2301MAV	TRANSISTOR	1	
Q7701	2SB709A	TRANSISTOR	1	
QR1001	MUN2112	TRANSISTOR	1	
QR3003	MUN2213	TRANSISTOR	1	
QR3004	MUN2213	TRANSISTOR	1	
QR3008	MUN2213	TRANSISTOR	1	
QR3011	MUN2213	TRANSISTOR	1	

[illegible]	[illegible]	[illegible]	[illegible]	

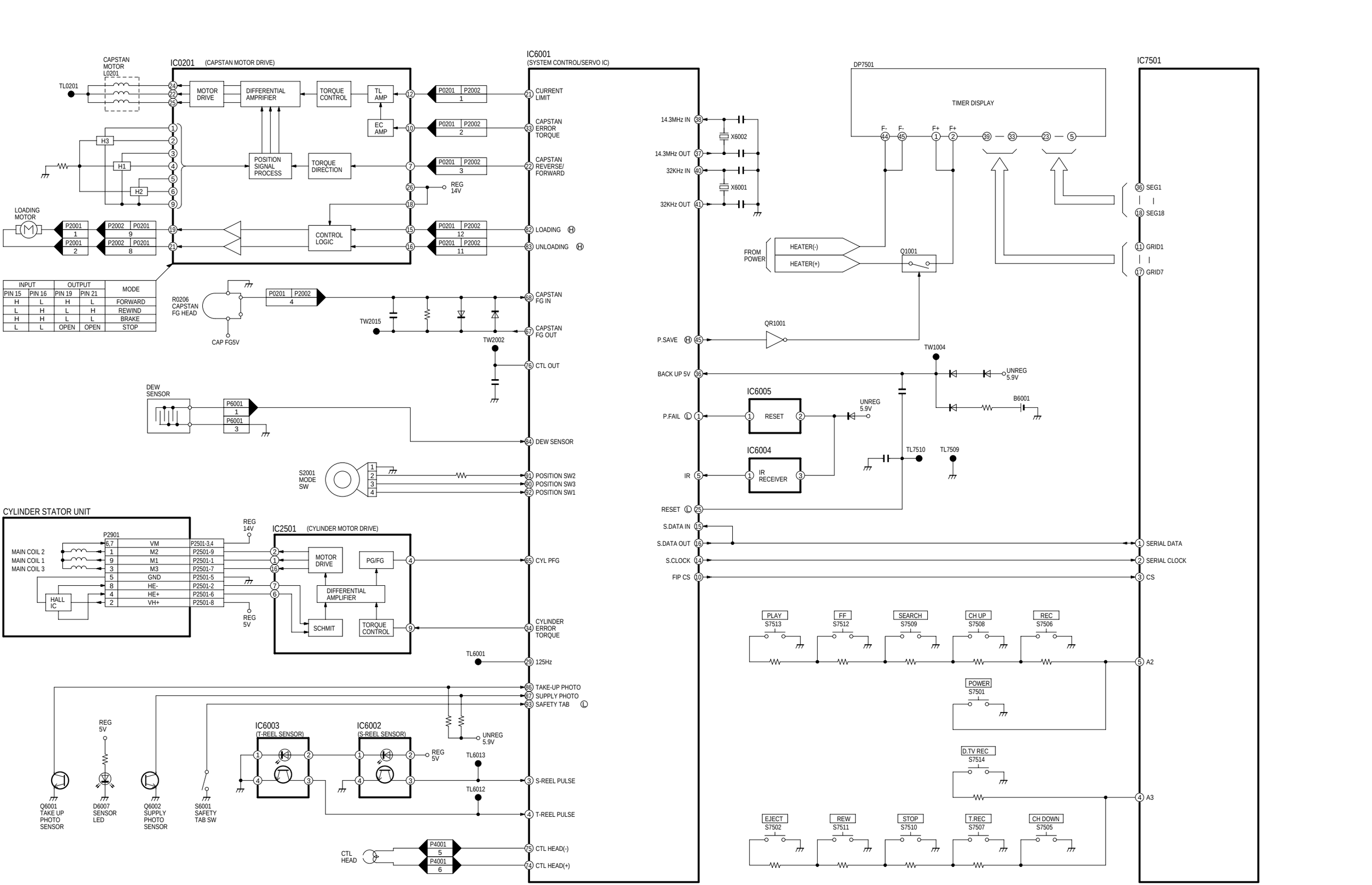
Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
QR3502	MUN2212	TRANSISTOR	1	
QR4001	MUN2111	TRANSISTOR	1	
QR4002	MUN2211	TRANSISTOR	1	
QR4004	MUN2212	TRANSISTOR	1	
QR4005	UN2215	TRANSISTOR-RESISTOR	1	
QR4006	UN2215	TRANSISTOR-RESISTOR	1	
QR4502	UN2215	TRANSISTOR-RESISTOR	1	
QR4505	MUN2113	TRANSISTOR	1	
QR6001	MUN2211	TRANSISTOR	1	
R1001	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R1002	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R1003	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R1004	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R1005	ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R1006	ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R1007	ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R1008	ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R1009	ERJ6GMYG683	M.RESISTOR CH 1/10W 68K	1	
R1010	ERJ6GMYG433	M.RESISTOR CH 1/10W 43K	1	
R1011	ERJ6GMYG752	M.RESISTOR CH 1/10W 7.5K	1	
R1013	ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R1120	ERC12AGM334	S.RESISTOR 1/2W 330K	1	⚠
R1150	ERX1SJR51	M.RESISTOR 1W 0.51	1	
R1151	ERDS2FJ331	C.RESISTOR 1/4W 330	1	
R1152	ERDS2FJ102	C.RESISTOR 1/4W 1K	1	
R1153	ERDS2FJ123	C.RESISTOR 1/4W 12K	1	
R1154	ERDS2FJ123	C.RESISTOR 1/4W 12K	1	
R1155	ERDS2FJ123	C.RESISTOR 1/4W 12K	1	
R1156	ERDS2FJ123	C.RESISTOR 1/4W 12K	1	
R1157	ERDS2FJ123	C.RESISTOR 1/4W 12K	1	
R1158	ERDS2FJ123	C.RESISTOR 1/4W 12K	1	
R1159	ERDS2FJ474	C.RESISTOR 1/4W 470K	1	
R1160	ERDS2FJ564	C.RESISTOR 1/4W 560K	1	
R1161	ERG1SJ223	M.RESISTOR 1W 22K	1	
R1162	ERG1SJ223	M.RESISTOR 1W 22K	1	
R1163	ERDS1TJ470	C.RESISTOR 1/2W 47	1	
R1180	ERDS2FJ222	C.RESISTOR 1/4W 2.2K	1	
R1181	ERDS2FJ222	C.RESISTOR 1/4W 2.2K	1	
R1182	ERDS2TJ101	C.RESISTOR 1/4W 100	1	
R1183	ERDS2TJ104	C.RESISTOR 1/4W 100K	1	
R1184	ERDS2FJ105	C.RESISTOR 1/4W 1M	1	
R1185	ERDS2FJ152	C.RESISTOR 1/4W 1.5K	1	
R1186	ERDS2FJ105	C.RESISTOR 1/4W 1M	1	
R1200	ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R1201	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R1202	ERJ6GMYG222	M.RESISTOR CH 1/10W 2.2K	1	
R1203	ERJ6GMYG272	M.RESISTOR CH 1/10W 2.7K	1	
R1204	ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R1205	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R1206	ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
R2001	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2002	ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R2003	ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R2004	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	

Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
R2005	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R2006	ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R2007	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R2501	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2502	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2503	ERDS2TJ330	C.RESISTOR 1/4W 33	1	
R2504	ERDS2TJ330	C.RESISTOR 1/4W 33	1	
R2505	ERDS2TJ330	C.RESISTOR 1/4W 33	1	
R2506	ERDS2TJ1R2	C.RESISTOR 1/4W 1.2	1	
R2507	ERDS2TJ1R5	C.RESISTOR 1/4W 1.5	1	
R2508	ERDS2TJ331	C.RESISTOR 1/4W 330	1	
R3002	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3003	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R3004	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3005	ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	
R3006	ERJ6GMYJ684	M.RESISTOR CH 1/10W 680K	1	
R3007	ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R3008	ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R3009	ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3010	ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R3013	ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R3014	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3015	ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R3016	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3017	ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3022	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R3023	ERDS2TJ391	C.RESISTOR 1/4W 390	1	
R3026	ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3027	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3028	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R3030	ERJ6GMYG301	M.RESISTOR CH 1/10W 300	1	
R3031	ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R3043	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R3044	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R3045	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3046	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R3047	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R3048	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3050	ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R3052	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R3055	ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R3501	ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R3502	ERJ6GMYJ681	M.RESISTOR CH 1/10W 680	1	
R3503	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R3504	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R3505	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R4004	ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R4006	ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R4008	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R4009	ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R4010	ERJ6GMYK225	M.RESISTOR CH 1/10W 2.2M	1	
R4011	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R4014	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R4015	ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	

Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
R4016	ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R4017	ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R4019	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R4021	ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R4028	ERJ6GMYJ163	M.RESISTOR CH 1/10W 16K	1	
R4029	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4030	ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R4031	ERJ6GMYJ241	M.RESISTOR CH 1/10W 240	1	
R4032	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4033	ERJ6GMYJ334	M.RESISTOR CH 1/10W 330K	1	
R4037	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R4038	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4039	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4040	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R4041	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4042	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4043	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R4044	ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R4508	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6001	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6002	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6003	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6004	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6005	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R6007	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R6008	ERJ6GMYJ334	M.RESISTOR CH 1/10W 330K	1	
R6010	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6011	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6012	ERJ6GMYG393	M.RESISTOR CH 1/10W 39K	1	
R6013	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6014	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6015	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6016	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6017	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6018	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6019	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6022	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6023	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R6024	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R6026	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R6027	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R6028	ERDS2TJ181	C.RESISTOR 1/4W 180	1	
R6029	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6031	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R6032	ERDS2TJ121	C.RESISTOR 1/4W 120	1	
R6033	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R6034	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6035	ERJ6GMYJ244	M.RESISTOR CH 1/10W 240K	1	
R7501	ERJ6GMYJ823	M.RESISTOR CH 1/10W 82K	1	
R7504	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R7505	ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R7506	ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R7507	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R7508	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	

Ref. No.	Part No.	Part Name& Description	Pcs	Remarks
R7509	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R7510	ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R7512	ERDS2TJ150	C.RESISTOR 1/4W 15	1	
R7514	ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R7515	ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R7516	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7517	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7518	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R7519	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R7520	ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R7521	ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R7522	ERJ6GMYJ563	M.RESISTOR CH 1/10W 56K	1	
R7601	ERDS2TJ331	C.RESISTOR 1/4W 330	1	
R7602	ERDS2TJ331	C.RESISTOR 1/4W 330	1	
R7603	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R7604	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R7605	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7606	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R7607	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R7609	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7701	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7704	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R7708	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R7709	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
S2001	VSS0565	MODE SWITCH	1	
S6001	VES0834	S-TAB SWITCH	1	
S7501	EVQPC105K	SWITCH	1	
S7502	EVQ11L07B	SWITCH	1	
S7505	EVQ11L07B	SWITCH	1	
S7506	EVQ11L07B	SWITCH	1	
S7507	EVQ11L07B	SWITCH	1	
S7508	EVQ11404M	SWITCH	1	
S7509	EVQ11404M	SWITCH	1	
S7510	EVQ11L07B	SWITCH	1	
S7511	EVQ11L07B	SWITCH	1	
S7512	EVQ11L07B	SWITCH	1	
S7513	EVQ11L07B	SWITCH	1	
S7514	EVQ11L07B	SWITCH	1	
T1150	VLT0972	SWITCHING TRANSFORMER	1	⚠
T4002	VLT0895	TRANSFORMER	1	
TU7601	ENG57810G1	TUNER	1	⚠
X3001	VSX0162	CRYSTAL OSCILLATOR	1	
X3002	VSX0160	CRYSTAL OSCILLATOR	1	
X6001	VSX1022	CRYSTAL OSCILLATOR	1	
X6002	VSX1021	CRYSTAL OSCILLATOR	1	
.	TP00351-51	FUSE HOLDER	2	
.	VSC4998	HA ANGLE	1	

<table>
<tr><th>Pin No.</th><th>In/Out</th><th>Port Name</th><th>Function</th></tr>
<tr><td>85</td><td>I</td><td>NORM/SERV/T2/TEST</td><td>Normal/Service/Test2/Test mode selection.
<table>
<tr><th>INPUT VOLTAGE</th><th>MODE</th></tr>
<tr><td>More than 4.0V</td><td>Normal</td></tr>
<tr><td>2.5V - 4.0V</td><td>Service</td></tr>
<tr><td>1.0V - 2.5V</td><td>Test 2</td></tr>
<tr><td>Less than 1.0V</td><td>Test</td></tr>
</table></td></tr>
<tr><td>86</td><td>I</td><td>T-PHOT</td><td>This port receives less than 2.4V when Take-up photo sensor detects the tape beginning.</td></tr>
<tr><td>87</td><td>I</td><td>S-PHOT</td><td>This port receives less than 2.4V when Supply photo sensor detects the tape end.</td></tr>
<tr><td>88</td><td>I</td><td>T.S.CURVE</td><td>Tuner S curve input.</td></tr>
<tr><td>89</td><td>I</td><td>TRACKING ENVE</td><td>Playback envelope input for auto tracking adjustment.</td></tr>
<tr><td>90</td><td>I</td><td>POS SW1</td><td rowspan="3">Mechanism position detection input.
<table>
<tr><th>P.SW 3</th><th>P.SW 2</th><th>P.SW 1</th><th>Position(Mode) Name</th></tr>
<tr><td>0</td><td>0</td><td>0</td><td>EJECT</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>CASSETTE DOWN</td></tr>
<tr><td>0</td><td>1</td><td>0</td><td>REV,REV SLOW</td></tr>
<tr><td>0</td><td>1</td><td>1</td><td>MID(LOADING/UNLOADING)</td></tr>
<tr><td>1</td><td>0</td><td>0</td><td>PLAY/REC,STILL/PAUSE,CUE,FWD SLOW,STOP3*1</td></tr>
<tr><td>1</td><td>0</td><td>1</td><td>STOP</td></tr>
<tr><td>1</td><td>1</td><td>0</td><td>FF/REW</td></tr>
<tr><td>1</td><td>1</td><td>1</td><td>INTERMEDIATE</td></tr>
</table>
(*1) The Pinch Roller is on the Capstan motor shaft.</td></tr>
<tr><td>91</td><td>I</td><td>POS SW2</td></tr>
<tr><td>92</td><td>I</td><td>POS SW3</td></tr>
<tr><td>93</td><td>I</td><td>S.TAB(L)</td><td>This port receives low while the cassette tape with safety tab is inserted.</td></tr>
<tr><td>94</td><td>I</td><td>N.C.</td><td>Not used</td></tr>
<tr><td>95</td><td>O</td><td>POWER SAVE(H)</td><td>FIP on/off control during power off.
FIP off:High
FIP on:Low</td></tr>
<tr><td>96</td><td>O</td><td>POWER OFF(H)</td><td>Power on/off control.</td></tr>
<tr><td>97</td><td>O</td><td>SLOW MODE (H)</td><td>Not Used</td></tr>
<tr><td>98</td><td>O</td><td>ROTARY SW</td><td>Rotary switching signal output.</td></tr>
<tr><td>99</td><td>O</td><td>H.A.SW</td><td>Head amp switching signal output.
1. 4 Head model
LP/EP:High
SP:Low
2. 2 Head model
Low</td></tr>
<tr><td>100</td><td>I</td><td>ENVE SELECT</td><td>This port receives the playback envelope signal level to select the video head in special playback mode.</td></tr>
</table>



INPUT		OUTPUT		MODE
PIN 15	PIN 16	PIN 19	PIN 21	
H	L	H	L	FORWARD
L	H	L	H	REWIND
H	H	L	L	BRAKE
L	L	OPEN	OPEN	STOP

MAIN SIGNAL PATH IN REC MODE

MAIN SIGNAL PATH IN PLAYBACK MODE

IC3001

IC3501

TO SYSTEM CONTROL

C SYNC

FROM TUNER

TUNER VIDEO

(SJ400)

JK3001 (FRONT)

VIDEO IN

JK3002 (REAR)

VIDEO IN

VIDEO OUT

TO TUNER

RFC VIDEO OUT

Q3001

AMP

TO/FROM SYSTEM CONTROL

SYS VIDEO IN

ART V/H/N

VIDEO OUT

IIC CLOCK

IIC DATA

IIC BUS TRANSCEIVER

YNR

HSS

1H DELAY

LPF

NC1

PICT

DDC

NOR

CLP1

NC2

DET

AGC

Y/C

C

EE

EE/ FAMI

VV

NLE NLDE

DTE

FAMI

MAIN LPF

Y/C MIX

SUB CLAMP

AMP

ART SYNC

SUB LPF

FM DEM

DOUB LIM

ENV DET

PEAKING

H-TRAP

W/D CLIP

MAIN EMPH

DEV ADJ

FM MOD

AGC DET

RF AGC

L-TRAP &HPF

C

Y/C MIX

REC-Y ADJ

Y

LPF

TW3001

TW3030

QR3502

PAL 9H

QR3501

SP

AMP & H.AMP SW

PREAMP & H.SW

H.AMP SW

PREAMP & H.SW

L

COM

R

P3501 3

P3501 2

P3501 1

TO/FROM CYLINDER VIDEO HEAD

SP L

SP COM

SP R

P3501 6

P3501 5

P3501 4

TO/FROM CYLINDER VIDEO HEAD

COLOUR KILLER SW

BURST UP/DOWN

630KHz BPF

CACC

REC-C ADJ

BM-B

(PB)2.2/1.79M → 4.43/3.58M

(FAMI)2.2M → 4.43M

NTSC ALTERNATION

FAMI/VV

BPF (FAMI)3.58M (PAL-PB)2.2M (NTSC-PB) 1.79M

BPF 3.58M/ 4.43M

VV/ FAMI

2HDL 1HDL

0HDL

0HDL

BM-A

(REC)4.43/3.58M

(PB)630K → 2.2/1.79M

(FAMI)3.58M → 2.2M

ACC

ACC DET

VV LP

FAMI/ VV SP

PHASE ROTATION

FSC

ROTARY SW

TO/FROM SYSTEM CONTROL

2fsc

X2

fsc

VXO

1/2

1/4

1/4

SUB BM

F.DET

1/40

VCO

APC CK DET

AFC

SIDE LOCK

FH

PB Q ADJ

+5V

QR3003

QR3004

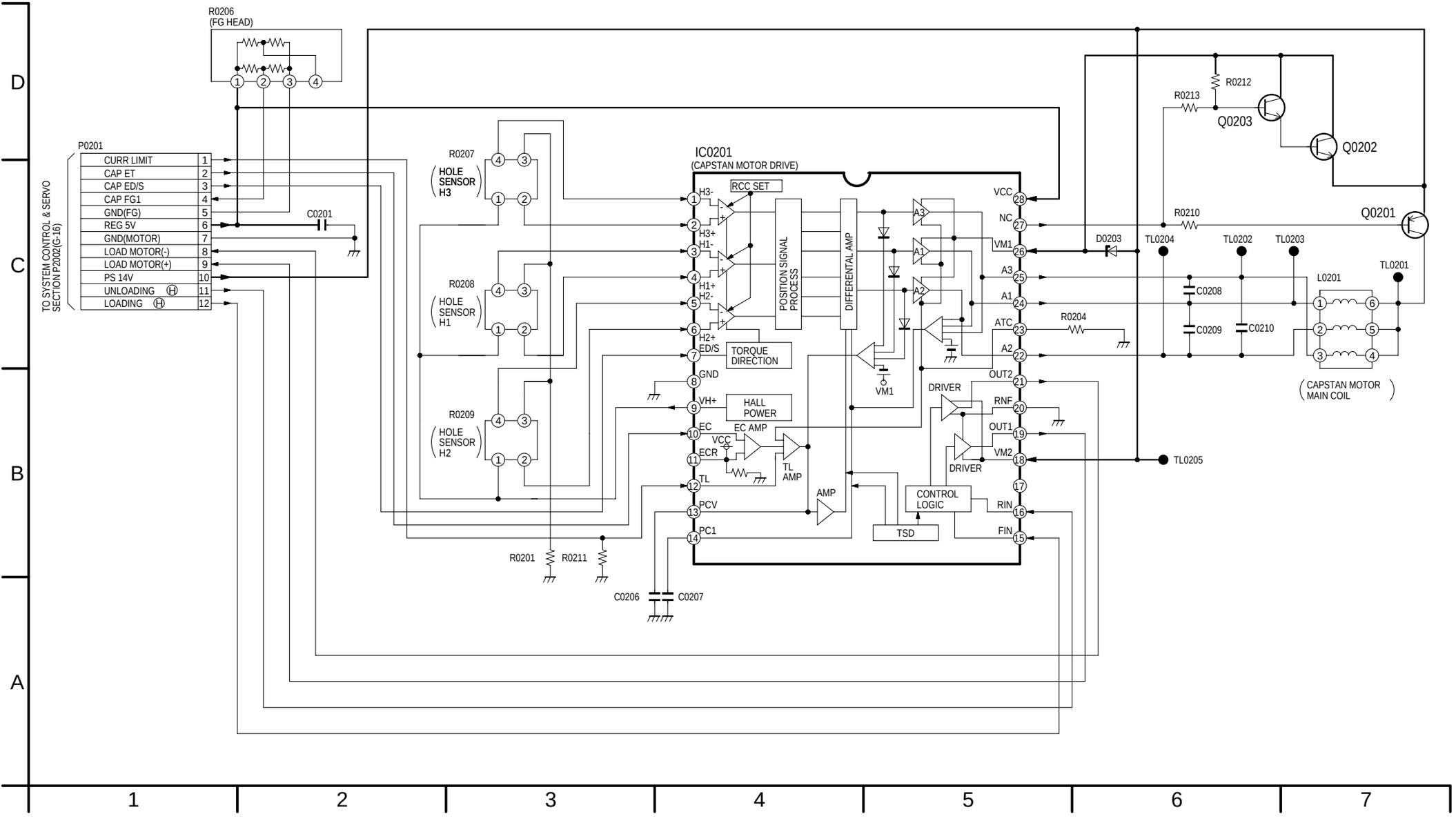
SP

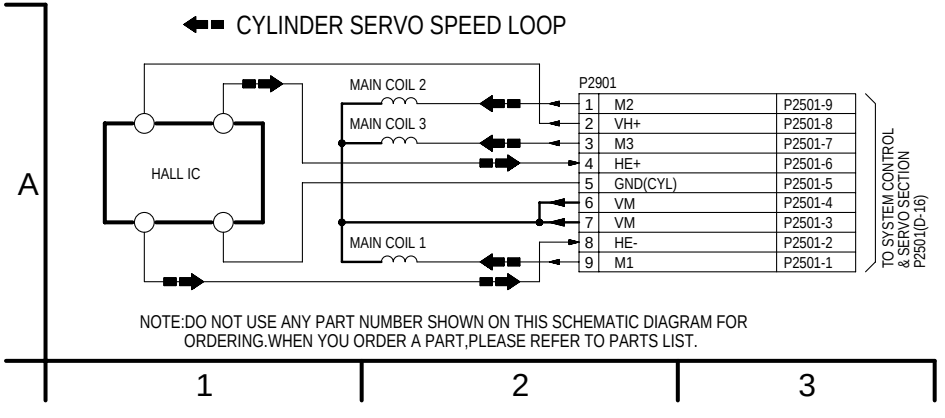
FROM SYSTEM CONTROL

X3001

X3002

FAMI MODE:When setting the NTSC CONVERTER to ON on the OSD Screen Display, the signals from NTSC Signal Source (ex.NTSC GAME Machine)connected to the VCR can be appeared on the PAL TV.However when recording, it is not recorded correctly.


R0206
(FG HEAD)
P0201
CURR LIMIT 1
CAP ET 2
CAP ED/S 3
CAP FG1 4
GND(FG) 5
REG 5V 6
GND(MOTOR) 7
LOAD MOTOR(-) 8
LOAD MOTOR(+) 9
PS 14V 10
UNLOADING Ⓗ 11
LOADING Ⓗ 12
TO SYSTEM CONTROL & SERVO SECTION P2002(G-16)
C0201
R0207
HOLE SENSOR H3
R0208
HOLE SENSOR H1
R0209
HOLE SENSOR H2
IC0201
(CAPSTAN MOTOR DRIVE)
RCC SET
POSITION SIGNAL PROCESS
DIFFERENTIAL AMP
TORQUE DIRECTION
HALL POWER
EC AMP
TL AMP
AMP
TSD
CONTROL LOGIC
DRIVER
DRIVER
H3-
H3+
H1-
H1+
H2-
H2+
ED/S
GND
VH+
EC
VCC
ECR
TL
PCV
PC1
VCC
NC
VM1
A3
A1
A2
ATC
A2
OUT2
RNF
OUT1
VM2
RIN
FIN
VM1
R0201
R0211
C0206
C0207
R0212
R0213
Q0203
Q0202
Q0201
R0210
D0203
TL0204
TL0202
TL0203
TL0201
L0201
C0208
C0209
C0210
R0204
CAPSTAN MOTOR MAIN COIL
TL0205



NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

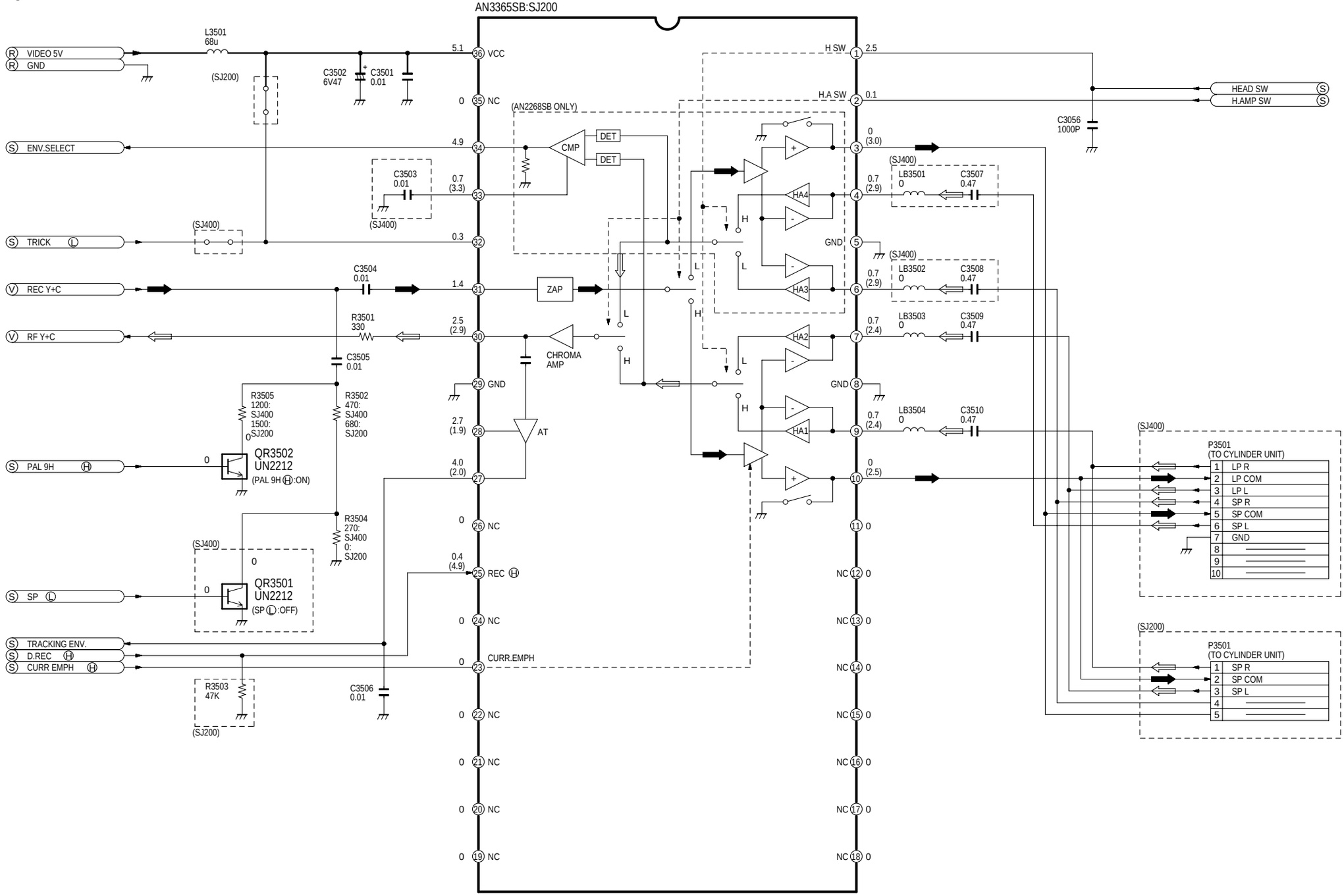
Ⓡ :TO POWER SUPPLY/RF SECTION

Ⓢ :TO SYSTEM CONTROL & SERVO SECTION

Ⓥ :TO LUMINANCE & CHROMINANCE/AUDIO SECTION

VIDEO MAIN SIGNAL PATH IN REC MODE

VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE



NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( )ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR.(SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.(SP MODE)

NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

E D C B A

1 2 3 4 5 6 7

CAUTION

THE STRIPED FRAME INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT.

PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.

Ⓡ :TO POWER SUPPLY/RF SECTION

Ⓣ :TO TIMER SECTION

HOT

P1102 (TO AC CORD) AC(A) 1, AC(N) 2

F1101 VSF0243C16

L1120 ELF15N003A:SJ400 VLF1498G0R3:SJ200

L1121 ELF15N003A:SJ400 VLF1498G0R3:SJ200

LB1122 0

C1121 330P

C1120 330P

C1122 0.1

C1132 0.1

R1120 330K

D1140 S1WBA80-4062

C1140 400V 68

LB1126 0

LB1125 0

LB1123 0

R1155 12K

R1156 12K

R1157 12K

R1158 12K

R1154 12K

R1153 12K

R1160 560K

R1159 470K

R1186 1M

R1184 1M

R1162 22K

R1161 22K

C1152 0.01

D1152 AP01CV2

R1180 2200

R1181 2200

Q1180 2SB1030A (PROTECTOR)

Q1181 2SD1330 (PROTECTOR)

R1182 100

D1180 1SS254

C1180 6V330

R1183 100K

C1181 1000P

LB1124 0

C1124 1000P

D1153 MA185

R1163 47

T1150 ETE28K131AZ:SJ400 VLT0972:SJ200

P1 P2 V1 V2

S7 S8 S3 S4 S6 S1 S2 S5

D1280 11EQS06

IP1280 VSF0015A10T

C1281 10V390

HEATER (+) Ⓡ

HEATER (-) ⓇⓉ

C1260 100P

D1261 21DQ06FC4

L1260 22u

C1261 10V1200

C1262 10V330

UNREG 5.9V Ⓡ

D1270 ERA22-04

L1270 100u

C1271 35V100

C1272 0.01

UNREG -29V Ⓣ

C1250 100P

D1250 RL2ZPLF-C4

L1250 22u

C1251 25V820

C1252 25V330

UNREG 16V Ⓡ

C1230 100P

D1230 ERA22-04

L1230 100u

C1231 50V47

C1232 0.01

UNREG 36V Ⓡ

IC1150 STRF6552LF

START O.V.P LATCH DRIVE REG T.S.D O.S.C

LB1150 VLP0056

R1151 330

D1150 11EQS04

R1150 0.51

C1153 35V47

R1185 1500

D1151 MA7300B

C1151 100P

D1200 1SS254

C1201 8200P

D1201 1SS254

R1206 2200

R1152 1K

C1150 1000P

Q1200 PC123ZY2

R1200 270

R1204 560

R1203 2700

R1201 27K

R1202 2200

IC1200 TL431CLP

C1200 0.1

R1205 1K

NOTE:THE MEASURMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE1:WHEN MEASURE THE VOLTAGE OR WAVEFORM ON THE POWER TRANSFORMER CIRCUIT,SET THE GND TERMINAL OF MEASURING POINT AS FOLLOWS.
PRIMARY SIDE..... ⏚
SECONDARY SIDE... ⏚

NOTE2:THE DC VOLTAGE INDICATED IN PRIMARY SIDE IS SHOWN THE VOLTAGE WHEN INPUT AC IS 240V.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,USE ONLY THE SAME TYPE.

NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

Ⓟ :TO POWER TRANSFORMER SECTION
Ⓢ :TO SYSTEM CONTROL & SERVO SECTION
Ⓥ :TO LUMINANCE & CHROMINANCE/AUDIO SECTION
Ⓗ :TO HEAD AMP SECTION
Ⓣ :TO TIMER SECTION

VIDEO MAIN SIGNAL PATH IN REC MODE
VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
AUDIO MAIN SIGNAL PATH IN REC MODE
AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

IC1001
PQ20VB2E
IN OUT GND ON/OFF
15.9 14.3 1.2

Q1001
2SD602A
(POWER SAVE:OFF)
-12.9 -13.1 -12.3

R1001 5600
R1002 5600
R1009 68K
C1014 25V47
R1010 43K
R1011 7500
R1003 10K
R1004 10K
D1009 0
D1008 0

QR1001
UN2112
(POWER SAVE Ⓗ:OFF)
4.9 0 5.0

Ⓢ CYL REG 14V
Ⓢ CAP REG 14V
Ⓟ HEATER(-)
Ⓟ HEATER(+)
Ⓢ POWER SAVE Ⓗ
Ⓢ SYS UNREG 5V
Ⓣ PS HEATER(+)

⚠ IP1003
VSF0015A025

Ⓟ UNREG 16V

Q1005
2SD1330
(12V REG)
16.1 12.3 12.9

C1007 0.01
D1004 MA4130NL
C1008 16V47
R1007 10K
R1013 10K
R7601 330
R7602 330

Ⓢ POWER OFF Ⓛ
Ⓟ UNREG 36V
Ⓢ Ⓥ REG 5V
Ⓢ Ⓥ Ⓗ VIDEO 5V
Ⓢ CYL UNREG 5.9V

⚠ IP1001
UNH000300A

Ⓟ UNREG 5.9V

Q1003
2SD1330
(5V REG)
5.6 5.2 5.9

⚠ IP1002
UNH000300A

Q1004
2SD1330
(5V REG)
5.6 5.2 5.9

C1004 6V100
C1005 6V100
C1001 0.01
C1002 0.01
D1001 MA4051NM
R1005 1K
R1006 1K
D1002 1SS254

Ⓢ GND
Ⓥ GND
Ⓗ GND
Ⓣ GND
Ⓢ GND(FG)
Ⓢ GND(MOTOR)
Ⓢ GND(CYL)

Ⓥ REG 12V
Ⓢ Ⓣ UNREG 5.9V

⚠ IP1004
UNH000300A

Q1007
2SD1330
(5V REG)
5.7 5.1 5.8

C1013 0.01
C1011 6V100
R1008 1800
D1005 MA4051NM
D1006 1SS254

Ⓢ IIC DATA (A1)
Ⓢ IIC CLOCK (A2)
Ⓢ AFC S-CURVE (A3)
Ⓥ TUNER VIDEO (A4)
Ⓥ TUNER AUDIO (A5)
Ⓢ PAL BG Ⓗ (A6)
Ⓥ RFC AUDIO OUT (A7)
Ⓥ RFC VIDEO OUT (A8)

L7606 0
C7611 0.01
C7613 6V100
L7604 33u
C7612 6V100
L7603 33u
C7609 0.01
C7608 6V100
C7605 50V10
D7601 MA4300NM
L7602 0

R7607 0
R7606 0
R7609 1K
L7605 33u
R7605 1K
R7603 0
C7606 33P
R7604 0
C7607 33P

⚠ TU7601
TUNER UNIT
ENG57810G1

1 RF 5V
2 GND
3 DATA
4 CLOCK
5 RF 5V
6 VIDEO OUT (A8)
7 AUDIO OUT (A7)
8
9
10
11 CLOCK
12 DATA
13 GND
14 RF 5V
15 SW1
16 BTL 30V
17 IF OUT
18 IF IN
19 SW1
20 PAL BG Ⓗ (A6)
21 TUNER AUDIO (A5)
22
23 AFC S-CURVE (A3)
24 TUNER VIDEO (A4)
25 REG 5V

C7601 0.22

(A1) (A2)

IMPORTANT SAFETY NOTICE:
COMPONANTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,USE ONLY THE SAME TYPE.

NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

G F E D C B A
1 2 3 4 5 6 7 8 9

Ⓡ :TO POWER SUPPLY/RF SECTION
Ⓥ :TO LUMINANCE & CHROMINANCE/AUDIO SECTION
Ⓗ :TO HEAD AMP SECTION
Ⓣ :TO TIMER SECTION

CAPSTAN SERVO SPEED LOOP
CAPSTAN SERVO PHASE LOOP
CYLINDER SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP

DS6001 EYHS10Y2 (DEW SENSOR)
P6001: DEW SENSOR, GND
R6035 240K
MODE SW S2001 VSS0520
IC6004 PNA4611M08VT (IR RECEIVER) OUT GND VCC
IC6005 RN5VS42CA (RESET) GND VCC RST
C6015 0.01
QR6001 UN2211 (POWER OFF Ⓗ :ON)
SAFETY TAB S6001 VES0834
R6022 1K
R2005 27K
C2009 50V3.3
R2007 100
TL6010
R6034 10K
R6019 10K
R6018 22K: SJ400 10K: SJ200
R6021 47K (SJ400)
R6031 39K
R6032 120
R6033 27K
Q6001 PNB2301MBV (T-PHOTO)
D6007 SIR505S SENSOR
Q6002 PNB2301MAV (S-PHOTO)
D2003 1SS254

IC6001 MN101D02GMC
P FAIL IN Ⓛ
SP Ⓛ
S REEL PULSE
T REEL PULSE
IR IN
OSD REC 1
OSD REC 2
FM MUTE
V.EE Ⓗ
FL DRV CS
SQ PB Ⓗ
VCR Ⓗ /TV Ⓛ
CH H/L
IC CLOCK
IC LSN
IC TALK
IIC TALK/LSN
IIC CLOCK
PAL 9H SEL
HALF WAVE Ⓗ
CURR LIMIT
CAP ED/S
V HEAD SW
ART V/H/IN
RESET Ⓛ
ENV.SELECT, H.A.SW, ROTARY SW, SLOW MADE Ⓗ, POWER OFF Ⓗ, P SAVE Ⓗ, D.TV REC Ⓗ, S TAB Ⓛ, POSI SW1, POSI SW2, POSI SW3, TRACK ENV., T.S-CURVE, S-PHOTO, T-PHOTO, NORSER/T2/TEST, DEW SENSOR, UNLOAD Ⓗ, LOAD Ⓗ, AI, AO, EX.F/F/REW Ⓛ, PB CTL OUT

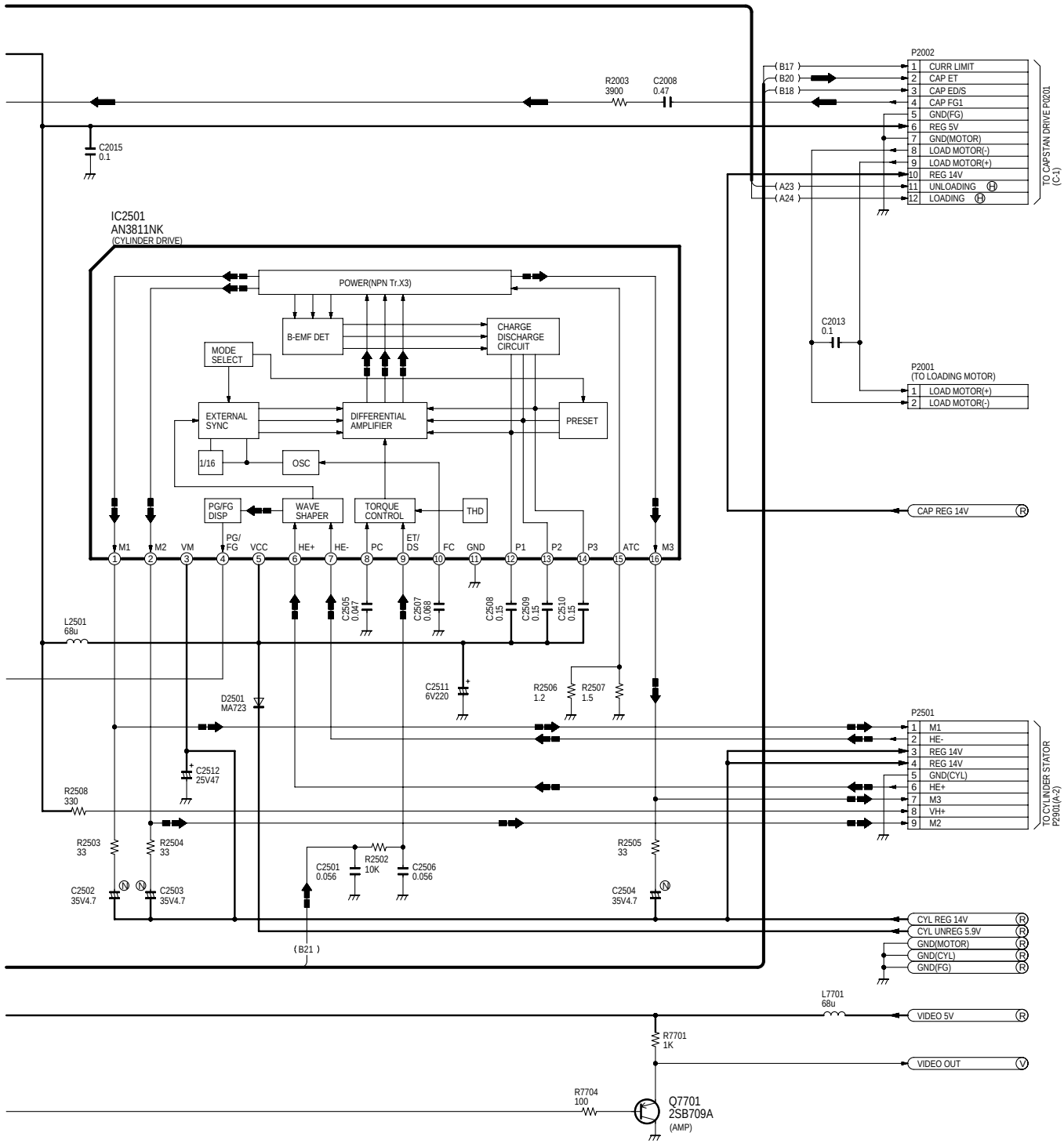
R6027 27K
R6026 27K
IC6002 RPI354N (S-REEL)
IC6003 RPI354N (T-REEL)
TL6013
TL6012
R6028 180
D6006 1SS254
R6017 220
R6001 3300
R6002 3300
R6003 3300
R6004 3300
R6016 220
R6015 220
R6014 220
R6013 220
R6012 39K
R6011 1K
R6010 3300
C6001 220P
C6011 220P
C6002 100P
C6003 100P

UNREG 5.9V
REG 5V
SYS UNREG 5V
GND
SP Ⓛ
FIP CS
POWER OFF Ⓛ
ENV.SELECT
H.AMP SW
ROTARY SW
POWER SAVE Ⓗ
TRACKING ENV.
AFC S-CURVE
CTL HEAD(-)
CTL HEAD(+)
PAL 9H Ⓗ
AUDIO MUTE Ⓗ
PAL BG Ⓗ
S.CLOCK
S.DATA
IIC DATA
IIC CLOCK
FM MUTE
HEAD SW
ART V/H/IN
D.A.REC Ⓗ
D.REC Ⓗ
CURR EMPH Ⓗ
BIAS Ⓛ
PICTURE 1
TRICK Ⓛ
SYS VIDEO IN
C SYNC
FSC

D6005 RB441PT-77
TW1004
D6004 RB441PT-77
LB6001 VLP0147
C6020 0.1
C6013 6V470
D6003 MA700A
C6008 0.1
R6029 1K
B6001 CR2354-1GUF
C6010 0.1
TW2001
TL7510
TL7509
TL6001
D6008 1SS254
D7702 1SS254
D6001 1SS254 (SJ400)
R2001 2200
R2501 10K
C2014 0.056
R6007 0
X6002 VSX1021
C6007 8P
C6006 15P
X6001 VSX1022
C6005 22P
R6008 330K
C6004 15P
R6025 22K (SJ400)
D6002 1SS254:SJ400 0:SJ200

TW2002
C2010 3900P
CTL HEAD(-)
CTL HEAD(+)
+5V(A)
CTL AMP REF
CTL AMP GND
IREF
OREF
CAP FG
CAP FG OUT
GND
CYL PG/FG
PAL 9H Ⓗ
AUDIO MUTE Ⓗ
AV PB Ⓗ
CHARA
I/DK/BG
CHARA+HEM
SECAM Ⓛ
SECAM MUTE
FSC LPF
FSC
AFC LPF
AFC C
+5V(OSD)
C2012 680P
R2006 6800
C2007 6V100
C2006 0.1
R2004 4700
C2003 6V22
C2002 50V4.7
TL6090
C2005 33P
R2002 1M
D2001 1SS254
D2002 1SS254
TL2015
R6005 0
R6024 0
R6023 0
R7709 100
C7707 2200P
C7706 0.01
C7708 1000P
R7708 2200
C7705 1
C7701 6V100
C7702 0.1
D.A.REC, D.REC, CURR EMPH, 128Hz, FULL ERASE Ⓛ, BIAS, A.HEAD SW, CAP ET, CYL ET, +5V(D), 14.318MHz OUT, 14.318MHz IN, GND(OSC), 32KHz IN, 32KHz OUT, CLK SEL, MESECAM, PIC 1, V.SYNC Ⓛ, TRICK Ⓛ, CV OUT, GND, CV IN, CV IN2

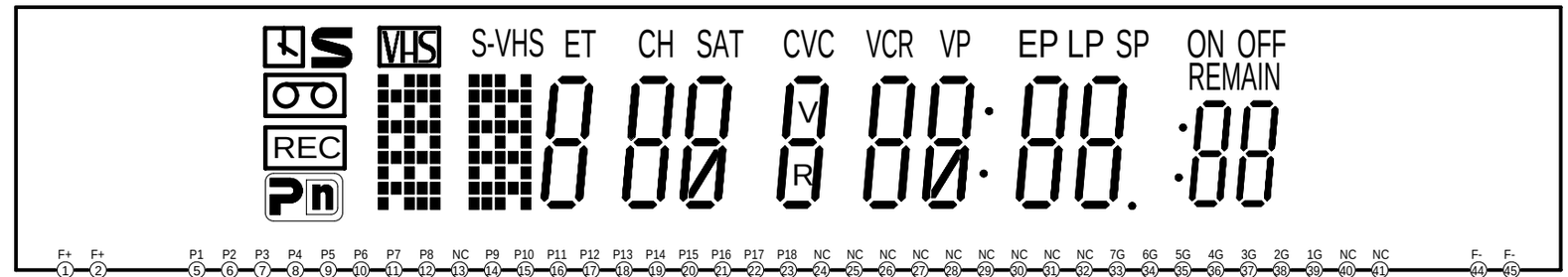
(A10) (A11 A12 A13) (A15 A16) (A4 A2 A3) (A17) (A1 A23 A24)
(B17 B18) (B1 B2) (B4 B5 B6) (B8) (B20 B21) (B9) (B11) (B13) (B14) (B15)



NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

Ⓟ :TO POWER TRANSFORMER SECTION
Ⓡ :TO POWER SUPPLY/RF SECTION
Ⓢ :TO SYSTEM CONTROL & SERVO SECTION

DP7501
VSL0543



F+ F+ P1 P2 P3 P4 P5 P6 P7 P8 NC P9 P10 P11 P12 P13 P14 P15 P16 P17 P18 NC NC NC NC NC NC NC NC NC NC 7G 6G 5G 4G 3G 2G 1G NC NC F- F-
1 2 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 44 45

Ⓡ PS HEATER(+) — R7512 15

Ⓟ HEATER(-) — D7502 MA4220NH — C7505 50V10 — R7510 270

Ⓟ UNREG -29V — R7504 100

S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S17 VEE
36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20 19
-28.4 -23.5 -27.1 -29.4 -24.3 -19.4 -24.3 -19.4 -24.3 -24.3 -19.1 -24.3 -24.3 -24.3 -29.2 -24.4 -29.4 -28.4

IC7501
M35502AFP

S DATA S CLOCK CS Ⓛ A3 A2 A5 A4 VSS OSC VCC G1 G2 G3 G4 G5 G6 G7 S18
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
4.4 4.6 3.4 5.0 5.0 0 3.5 2.3 5.0 -24.8 -24.8 -24.8 -24.8 -24.8 -24.8 -24.8 -29.4

Ⓢ S.DATA — R7507 220
Ⓢ S.CLOCK — R7508 220
Ⓢ FIP CS
C7503 12P

R7505 12K — R7506 12K — R7509 10K
C7502 0.1 — C7504 6V100

Ⓡ UNREG 5.9V — D7501 1SS254
Ⓡ GND

POWER S7501 EVQPC105K
D.TV REC S7514 EVQ11L07B — R7501 82K

REC S7506 EVQ11L07B — R7515 3900 — R7517 3300
CH UP S7508 EVQ11404M — R7519 5600
SEARCH S7509 EVQ11404M — R7520 15K
FF S7512 EVQ11L07B — R7522 56K
PLAY S7513 EVQ11L07B

CH DOWN S7505 EVQ11L07B — R7514 3900 — R7516 3300
T.REC S7507 EVQ11L07B — R7518 5600
STOP S7510 EVQ11L07B — R7521 15K
REW S7511 EVQ11L07B
EJECT S7502 EVQ11L07B

NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE:DO NOT USE PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLESE REFER TO PARTS LIST.

F E D C B A
1 2 3 4 5 6 7 8 9

Ⓡ :TO POWER SUPPLY/RF SECTION
Ⓢ :TO SYSTEM CONTROL & SERVO SECTION
Ⓗ :TO HEAD AMP SECTION

P4001
(TO A/C HEAD)
AUDIO ERASE IN 1
GND 2
A.HEAD (W) 3
A.HEAD (R) 4
CTL HEAD (-) 5
CTL HEAD (+) 6

Ⓢ CTL HEAD (+)
Ⓢ CTL HEAD (-)
Ⓢ BIAS Ⓗ

P4002
(TO FULL ERASE HEAD)
FULL ERASE IN 1
FULL ERASE OUT 2

R4041 10K
C4040 1000P
T4002 VLT0895
C4041 0.022
R4040 3300
0.3 (-0.6)
0.4 (4.7)
Q4005 2SD602A (OSC)
C4037 1500P
L4004 120u
C4039 6V220
C4038 0.022
0.4 (4.9)
R4042 2200
5.4 (4.1)
Q4006 2SB643 (AUDIO ERASE DRIVE)
R4043 3300
5.0

(SJ400)
JK3001
VJJ0681
(FRONT JACK)
AV2
VIDEO IN
R3001 75
AUDIO IN
LB4008 0
LB4002 0
R4002 0

JK3002
VJJ6079
(REAR JACK)
AV1
AUDIO IN
R4019 0
VIDEO IN
R3009 75
AUDIO OUT
LB4004 0
R4021 470
VIDEO OUT
R3017 75

C3020 6V470
C3019 16V47
R3007 470
Q3001 2SB709A (AMP)
3.3
2.6
R3008 470
R3010 8200

Ⓡ RFC VIDEO OUT
Ⓢ VIDEO OUT
Ⓡ REG 12V
Ⓡ REG 5V
Ⓡ VIDEO 5V
Ⓡ GND

(B1) (B2) (A2) (B3) (B4) (A1) (B5)

(SJ400)
R4005 68K
R4047 5600
0 (5.0)
Q4003 2SD1149 (PB:ON)
0 (-15.4)
Q4004 2SD601A (PB:ON)
R4037 4700
0.7 (-24.8)
R4038 2200
0.7 (-24.8)
QR4001 UN2111 (D.A.REC Ⓟ :OFF)
R4039 10K
R4011 0
R4508 47K
0.5
QR4502 UN2215 (MUTE)
QR4505 UN2113 (BUFFER)
0.3
0
C4046 100P
11.7 (14.0)
QR4005 UN2215 (PAL 9H Ⓗ :ON)
0
4.5
QR4006 UN2215 (PAL 9H Ⓗ :ON)
0

(B5) (B1) (B8) (B9) (B3) (B4)

H G F E D C B A
1 2 3 4 5 6 7 8

VIDEO MAIN SIGNAL PATH IN REC MODE
VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
AUDIO MAIN SIGNAL PATH IN REC MODE
AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

IC3001 AN3531NFBS

NOTE:THE MEASUREMENT MODE OF THE DC VLOLTAGE IN THE BRACKETS( )ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR.(SP MODE)

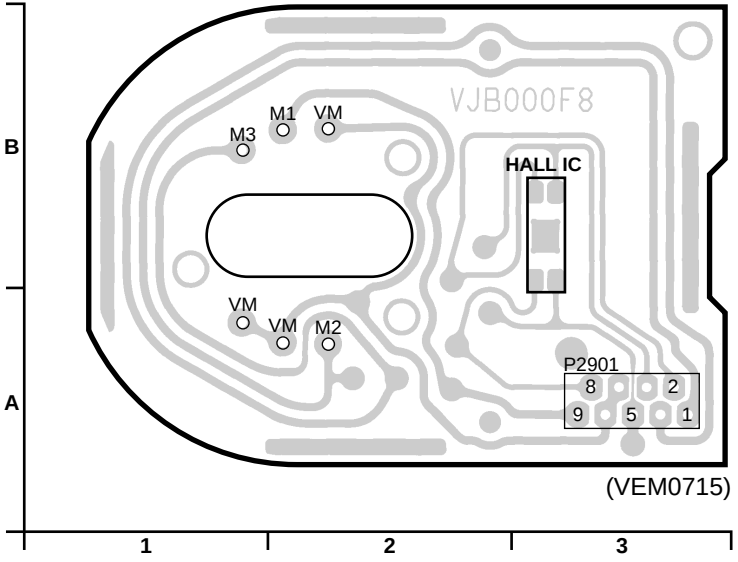
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.(SP MODE)

NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

9 10 11 12 13 14 15 16 17 18 19 20

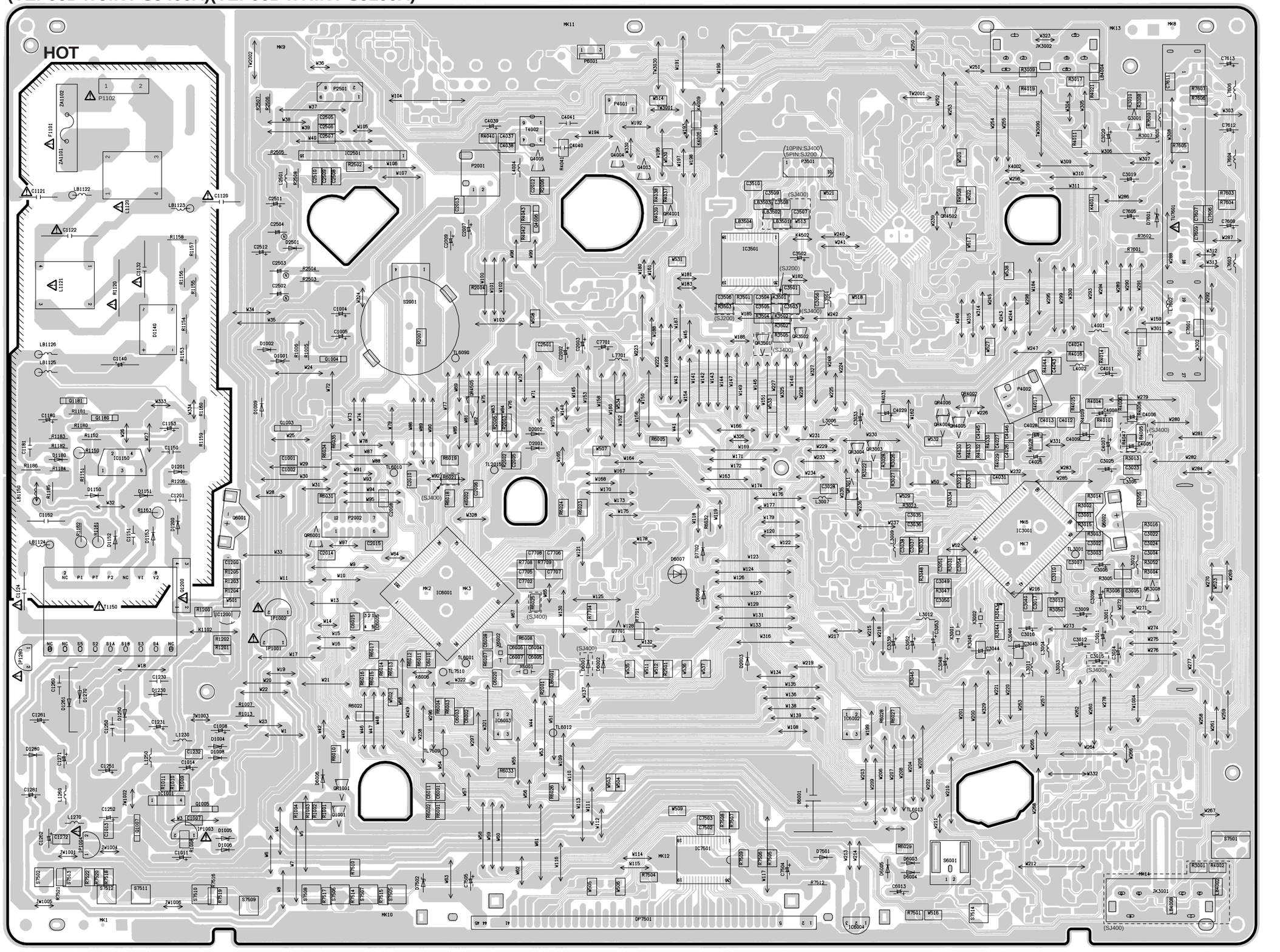
CYLINDER STATOR UNIT	
Integrated Circuit	
HALL IC	B-3
Connector	
P2901	A-3

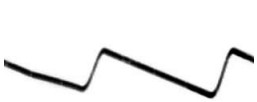
ADDRESS INFORMATION



(VEM0715)

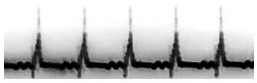
(VEP06D47J:NV-SJ400A)(VEP06D47R:NV-SJ200A)





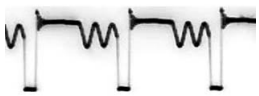
T1150-3 STOP
4.0Vp-p (2msec. div.)

T1150-7 STOP
100Vp-p (5μsec. div.)

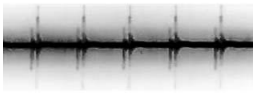


IC1150-1 STOP
2.0Vp-p (10μsec. div.)

IC1150-2 STOP
15Vp-p (10μsec. div.)



IC1150-3 STOP
450Vp-p (5μsec. div.)

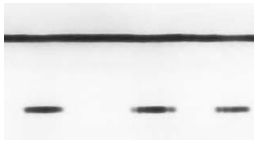


IC1150-4 STOP
2.0Vp-p (10μsec. div.)

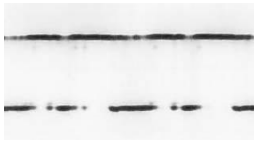
IC2501-1,2,16 REC
9.0Vp-p (2msec. div.)

IC6001-3,4 FF/REW
5.0Vp-p (1msec. div.)

IC6001-14 REC
4.8Vp-p (10msec. div.)

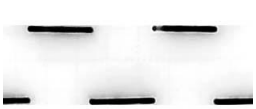


IC6001-15,16 REC
4.8Vp-p (10msec. div.)

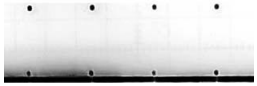


IC6001-17 REC
4.8Vp-p (10msec. div.)

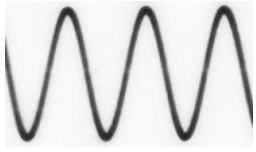
IC6001-18 REC
4.8Vp-p (10msec. div.)



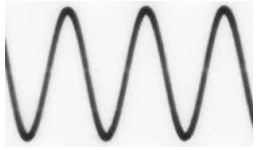
IC6001-23 REC
5.0Vp-p (10msec. div.)



IC6001-24 PAUSE
4.8Vp-p (10msec. div.)

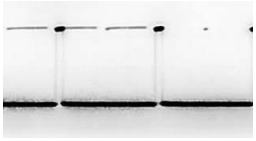


IC6001-38 REC
3.2Vp-p (50nsec. div.)



IC6001-40 REC
1.0Vp-p (20μsec. div.)

IC6001-47,49
REC/PLAY
2.0Vp-p (20μsec. div.)

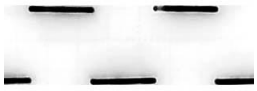


IC6001-50 REC/PLAY
5.0Vp-p (20μsec. div.)

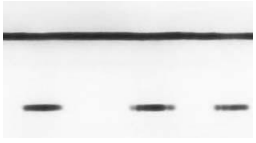
IC6001-65 REC
5.0Vp-p (10msec. div.)

IC6001-67 REC
0.8Vp-p (1msec. div.)

IC6001-74,75 REC
6.0Vp-p (10msec. div.)

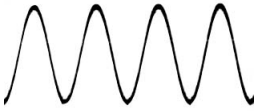


IC6001-98 REC
5.0Vp-p (10msec. div.)



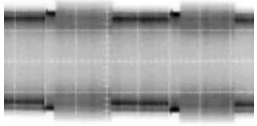
IC7501-1 STOP
4.8Vp-p (10msec. div.)

IC7501-2 STOP
4.8Vp-p (10msec. div.)

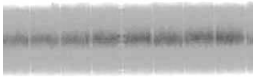


IC3001-2 REC
1.5Vp-p (5msec. div.)

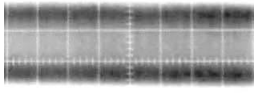
IC3001-4 PLAY
5.0Vp-p (5msec. div.)



IC3001-14 REC
0.4Vp-p (5msec. div.)



IC3001-15 PLAY
0.6Vp-p (20μsec. div.)



IC3001-20 PLAY
150mVp-p (20μsec. div.)

IC3001-24 REC/PLAY
5.0Vp-p (10msec. div.)

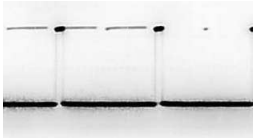
IC3001-37 REC/PLAY
4.8Vp-p (10msec. div.)

IC3001-38 REC/PLAY
4.8Vp-p (10msec. div.)

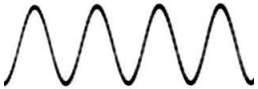
IC3001-42,43 PLAY
0.4Vp-p (20μsec. div.)

IC3001-48 REC
1.0Vp-p (20μsec. div.)

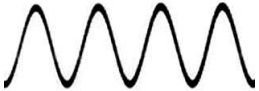
IC3001-52 REC/PLAY
2.0Vp-p (20μsec. div.)



IC3001-56 REC/PLAY
5.0Vp-p (20μsec. div.)



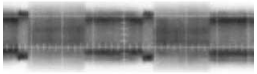
IC3001-73 REC
1.2Vp-p (5msec. div.)



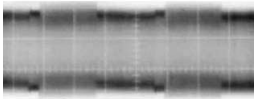
IC3001-78
REC/PLAY
1.2Vp-p (5msec. div.)

Q4005-C REC
9.0Vp-p (5μsec. div.)

IC3501-1 REC/PLAY
5.0Vp-p (10msec. div.)



IC3501-30 PLAY
0.4Vp-p (5msec. div.)



IC3501-31 REC
0.3Vp-p (5msec. div.)

443NT [L]	4.43 NTSC Ⓛ
A. COMP	AUDIO COMPONENT SIGNAL
A. COMPO	AUDIO COMPONENT SIGNAL
A. D.P [L]	AUDIO DUBBING PAUSE Ⓛ
A. D/L [L]	AUDIO DUBBING PAUSE Ⓛ
A. DEF [S]	AUDIO DEFEAT
A. DEF [S] [L]	AUDIO DEFEAT
A. DUB P [L]	AUDIO DUBBING PAUSE Ⓛ
A. DUB [H]	AUDIO DUBBING Ⓗ
A. ERASE	AUDIO ERASE
A. H. SW	AUDIO HEAD SWITCHING PULSE
A. HEAD [R]	AUDIO HEAD (REC)
A. HEAD [W]	AUDIO HEAD (PLAY)
A. IN [L]	AUDIO INPUT (L)
A. IN [R]	AUDIO INPUT (R)
A. MUT [H]	AUDIO MUTE Ⓗ
A. MUTE [H]	AUDIO MUTE Ⓗ
A. OUT [L]	AUDIO OUTPUT (L)
A. OUT [R]	AUDIO OUTPUT (R)
A. RF OUT	AUDIO RF SIGNAL OUTPUT
A/VS/S. DATA	AV SW/SERIAL DATA
AC ONLINE	AC ONLINE
AC. O/EE. H	AC ONLINE/EE Ⓗ
AFC S C	AFC S CURVE
AFC [S]	AFC S CURVE
AFC. DEF	AFC DEFEAT
ARFC OUT	AUDIO RF SIGNAL OUTPUT
ART. V	ARTIFICIAL VERTICAL SYNC SIGNAL
ART. V. MM	ARTIFICIAL VERTICAL SYNC SIGNAL MONO MULTI
ART. V/H/N	ARTIFICIAL VERTICAL SYNC SIGNAL Ⓗ/NORMAL
AT. V/H/N	ARTIFICIAL VERTICAL SYNC SIGNAL
ATSW/TEST/NOR/SE	TEST/NORMAL/SERVICE
AUDIO IN [L]	AUDIO INPUT (L)
AUDIO IN [R]	AUDIO INPUT (R)
AUDIO OUT [L]	AUDIO OUTPUT (L)
AUDIO OUT [R]	AUDIO OUTPUT (R)
AUDIO SELECT [H]	AUDIO SELECT Ⓗ
AUDIO. L	AUDIO (L)
AUDIO. R	AUDIO (R)
AV CNT	AV CONTROL
AV CTL	AV CONTROL
AV CTL/S. CLK	AV CONTROL/SERIAL CLOCK
AV. C.M.	AV CONTROL MODE
AVCNT/METER. R	AV CONTROL/LEVEL METER (R)
AVSW/METER. L	AV SW/LEVEL METER (L)
B MODE. H	B MODE Ⓗ
B.G.P	BURST GATE PULSE
BACKUP 5V	BACK UP 5V
BAND. U.E.	BAND U
BANDVL. D	BAND VL
BI/MI [L]	BILINGUAL/MIX Ⓛ
BIL	BILINGUAL
BIL [L]	BILINGUAL Ⓛ
BIL. [H]	BILINGUAL Ⓗ
BIL/M1 [L]	BILINGUAL Ⓛ
BS CLOCK	BS CLOCK
BS DATA	BS DATA
BS LCH IN	BS L CHANNEL INPUT
BS MIX [H]	BS MIX Ⓗ
BS MON [H]	BS MONITOR Ⓗ
BS MONI [H]	BS MONITOR Ⓗ
BS RCH IN	BS R CHANNEL INPUT
BS VIDEO	BS VIDEO SIGNAL
BS VIDEO/BS1	BS VIDEO SIGNAL
BS [H]	BS Ⓗ
BS. LEVEL	BS LEVEL
BS. M [H]	BS MONITOR Ⓗ
BS/VTR [H]	BS/VTR Ⓗ
BUS CLK	BUS CLOCK
BUS LSN	BUS LISTEN
BUS TLK	BUS TALK
BUZZER	BUZZER
CAP EC	CAPSTAN TORQUE CONTROL
CAP M GND	CAPSTAN MOTOR GND
CAP. ET	CAPSTAN TORQUE CONTROL
CAP. FG1	CAPSTAN FG1 PULSE
CAP. FG2	CAPSTAN FG2 PULSE
CAS. SW	CASSETTE SW
CCN	PLAYBACK CONTROL SIGNAL (–)
CCP	PLAYBACK CONTROL SIGNAL (+)
CHM	CONTROL SIGNAL (+)
CHP	CONTROL SIGNAL (–)
CINEM [L]	CINEMA Ⓛ
CINEMA [L]	CINEMA Ⓛ
CINEMA/MIX	CINEMA/MIX
CKL	RATCH LOCK
CKS	SHIFT LOCK
CL	CLOCK
CLK	CLOCK
CLK (C.G)	CLOCK
CLOCK. IN	CLOCK INPUT
CLP	CLAMP
COL/B/W/NOR	COLOUR/BLACK & WHITE/NORMAL
COLOR [H]	COLOUR Ⓗ
CONV	CONVERTOR
CS	CHIP SELECT
CTL GND	CONTROL GND
CTL HEAD [+]	CONTROL HEAD (+)
CTL HEAD [–]	CONTROL HEAD (–)
CTL [+]	CONTROL HEAD (+)
CTL [–]	CONTROL HEAD (–)
CUE BIAS	CUE BIAS
CURRENT LIM	CURRENT LIMMITER
CYL ET	CYLINDER TORQUE CONTROL

CYL GND	CYLINDER GND
D.F.M. REC [H]	DELAIED FM RECORDING Ⓗ
D. FM REC [L]	DELAIED FM RECORDING Ⓛ
D. GND	DIGITAL GND
D. REC [H]	DELAYED RECORDING Ⓗ
D4/S. LED	D4/STILL LED
D4/STILLED	D4/STILL LED
DAC [CLK]	TUNER DAC (CLOCK)
DAC/FSCS	TUNER DAC/FS CHIP SELECT
DAREC [H]	DELAYED AUDIO RECORDING Ⓗ
DATA	DATA
DECODER [L]	DECODER (L)
DECODER [R]	DECODER (R)
DEW	DEW
DEW SNS	DEW SENSOR
DFMRE [H]	DELAYED FM AUDIO RECORDING Ⓗ
E. REC 5V	EXCEPT RECORDING 5V
EC	ERROR TORQUE CONTROL
ECR	ERROR TORQUE CONTROL REFERENCE VOLTAGE
EDT TRIG [L]	EDIT TRIGGER Ⓛ
EDIT [H]	EDIT Ⓗ
EE [H]	EE Ⓗ
EE [H]/INS [M]	EE Ⓗ/INSERT Ⓜ
EE. VV. TR	EE/VV/TRICK PLAY
EJECT. PO	EJECT POSITION
EJECT/VDET	EJECT/REVERSE SLOW LOCK
ENV. SEL	ENVELOPE SELECT
ENVE. OUT	ENVELOPE OUTPUT
ENVE. SEL	ENVELOPE SELECT
ENV SELECT	ENVELOPE SELECT
EP [H]	LP Ⓗ
EP/LP [H]	LP Ⓗ
EP/LP/SP	LP/SP
EP/SS [H]	LP/SLOW/STILL/STOP Ⓗ
EPROMCS	EPROM CHIP SELECT
EX. REC 5V	EXCEPT RECORDING 5V
FF/REW [L]	FIRST FORWARD/REWIND Ⓛ
FG1 IN	FG1 PULSE INPUT
FG2 IN	FG2 PULSE INPUT
FILTER ADJUSTMENT	FILTER ADJUSTMENT
FLY ERASE [H]	FLYING ERASE HEAD ON Ⓗ
FLY ON [H]	FLYING ERASE HEAD ON Ⓗ
FLY. E [H]	FLYING ERASE HEAD ON Ⓗ
FM MUT [H]	FM AUDIO MUTE Ⓗ
FM MUTE [H]	FM AUDIO MUTE Ⓗ
FM OUT [L]	FM OUTPUT (L)
FM OUT [R]	FM OUTPUT (R)
FM PACK OUT [L]	FM PACK OUTPUT (L)
FM PACK OUT [R]	FM PACK OUTPUT (R)
FM/BS SEL [L]	FM/BS SELECT (L)
FM/BS SEL [R]	FM/BS SELECT (R)
FS. CLK	FS CLOCK
FUL. E [H]	FULL ERASE HEAD ON Ⓗ
FULL. E [H]	FULL ERASE HEAD ON Ⓗ

FULL. E. 12V	FULL ERASE 12V
GND [A]	GND (ANALOG)
GND [TU]	GND (TUNER)
GND/N. SW. 12V	GND/NON SW 12V
H. SYNC	HORIZONTAL SYNC
H. AMP. SW	HEAD AMP SW PULSE
H. P <R>	HEAD PHONE (R)
H. P <L>	HEAD PHONE (L)
H. P GND	HEAD PHONE GND
H. P OUT [L]	HEAD PHONE OUTPUT (L)
H. P OUT [R]	HEAD PHONE OUTPUT (R)
H. SW	HEAD SW PULSE
HEAD PHONE [L]	HEAD PHONE (L)
HEAD PHONE [R]	HEAD PHONE (R)
HEAD SW	HEAD SW
HEATER [+]	HEATER (+)
HEATER [–]	HEATER (–)
HSS	HORIZONTAL SYNC SIGNAL
HTR [+]	HEATER (+)
HTR [–]	HEATER (–)
I RFE	REFERENCE CURRENT
ICL	CONTROL AGC CIRCUIT
IF	INTERMEDIATE FREQUENCY
IN SELA1	INPUT SELECT A1 POSITION
IN SELA2	INPUT SELECT A2 POSITION
IN SELA3	INPUT SELECT A3 POSITION
INS L/R [L]	INSERT Lch/Rch Ⓛ
INS. [H]	INSERT Ⓗ
INSEL A1	INPUT SELECT A1 POSITION
INSEL A2	INPUT SELECT A2 POSITION
INSERT	INSERT
INSERT [H]	INSERT Ⓗ
IO CS	INPUT/OUTPUT CHIP SELECT
JOG1	JOG1
JOG S3 LED/FOWRD	JOG LED/FORWARD LED
JOG/F. LED	JOG LED/FORWARD LED
JSB [H]	JSB Ⓗ
JST. CLCK	JUST CLOCK
JST. CLK	JUST CLOCK
JST. CLOCK	JUST CLOCK
L. OUT	Lch OUTPUT
L. CH [H]	Lch Ⓗ
L. CH [L]	Lch Ⓛ
LED (MAIN)	LED (MAIN)
LED (STEREO)	LED (STEREO)
LED (SUB)	LED (SUB)
LED CKL	LED SERIAL CLOCK
LED CKS	LED SERIAL CLOCK
LED DATA	LED SERIAL DATA
LINE IN 1 [L]	LINE INPUT 1 (L)
LINE IN 1 [R]	LINE INPUT 1 (R)
LINE IN 2 [L]	LINE INPUT 2 (L)
LINE IN 2 [R]	LINE INPUT 2 (R)
LINE IN V	LINE INPUT VIDEO
LINE IN [L]	LINE INPUT (L)

LINE IN [R]	LINE INPUT (R)
LINE OUT [L]	LINE OUTPUT (L)
LINE OUT [R]	LINE OUTPUT (R)
LP [H]	LP Ⓗ
LPTRI [L]	LP TRICK PLAY Ⓛ
Lch/A. DUB	Lch/AUDIO DUBBING
M GND	MOTOR GND
M REG	MOTOR REGULATOR
MAIN OUT	MAIN OUTPUT
MAIN [L]	MAIN Ⓛ
MAIN/MONO	MAIN/MONAURAL
MAX IN	MAXIMAM INPUT
MES [H]	MESECAM Ⓗ
MESE [H]	MESECAM Ⓗ
MESE [L]	MESECAM Ⓛ
METER 5V	LEVEL METER 5V
METER [L]	LEVEL METER (L)
METER [R]	LEVEL METER (R)
METER. L/AVS	LEVEL METER (L)
METER. R/AVC	LEVEL METER (R)
MI/BI [L]	MIX Ⓗ/BILIGUAL
MIC GND	MIC GND
MIC IN	MIC INPUT
MIC IN [L]	MIC INPUT (L)
MIC IN [R]	MIC INPUT (R)
MIC [H]	MIC Ⓗ
MIX [H]	MIX Ⓗ
MIX [H]/CINEMA [L]	MIX Ⓗ/CINEMA SOUND Ⓛ
MIX/CINE	MIX Ⓗ/CINEMA SOUND Ⓛ
MIX/CINEMA [L]	MIX Ⓗ/CINEMA SOUND Ⓛ
MN. H/M. L	MONAURAL Ⓗ/MAIN Ⓛ
MN. H/MAI. L	MONAURAL Ⓗ/MAIN Ⓛ
MN2/MES. L	MONAURAL 2/MESECAM Ⓛ
MODE SEL	AUDIO MODE SELECT
MODE SW	AUDIO MODE SW
MODE. S. IN	AUDIO MODE SELECT INPUT
MODE. S. OUT	AUDIO MODE SELECT OUTPUT
MONO [H]	MONAURAL Ⓗ
MONO [H]/MAIN [L]	MONAURAL Ⓗ/MAIN Ⓛ
MONO2 [L]	MONAURAL 2
MONO2/MESE [FM(L)]	MONAURAL 2/MESECAM (FM Ⓛ)
MOTOR GND	MOTOR GND
MUTE	MUTE
N. A. REC [L]	NORMAL AUDIO RECORDING
N. SW 12V	NON SW 12V
N. SW. 5. DET	NON SW 5V DETECT
NICAM	NICAM
NICAM [L]	NICAM Ⓛ
NOL [H]	PAL Ⓗ/4.43 NTSC Ⓜ/3.58 NTSC Ⓛ
NOR/SOFT [H]	NORMAL/SOFT TAPE PLAY Ⓗ
NORMAL [H]	NORMAL Ⓗ
NR BIAS	NR BIAS
NTSC [L]	NTSC Ⓛ
OCH	CONTROL AGC CIRCUIT
OUT	OUTPUT

P-OFF [H]	POWER OFF Ⓗ
P-OFF [L]	POWER OFF Ⓛ
P. FAIL	POWER FAILURE DETECT
P. OFF [H]	POWER OFF Ⓗ
P. OFF [L]	POWER OFF Ⓛ
PAL [H]	PAL Ⓗ
PAL [L]/NTSC [H]	PAL Ⓛ/NTSC Ⓗ
PB ADJ OUT	PLAYBACK ADJUST OUTPUT
PB OUT	PLAYBACK OUTPUT
PB. H	PLAYBACK Ⓗ
PFG	PG/FG
PHOTSN +B	PHOTO SENSOR +B
PICT. CNT	PICTURE CONTROL
PLAY LED/RVS LED	PLAY LED/REVERSE LED
PLAY. PO	PLAY POSITION
PLAY/R. LED	PLAY LED/REVERSE LED
PLY/DEW	PLAY/DEW Ⓗ
POWER OFF [L]	POWER OFF Ⓛ
PREROLL [H]	PREROLL Ⓗ
PWRFAIL	POWER FAILURE DETECT
R. CH [H]	Rch Ⓗ
R. CH [L]	Rch Ⓛ
R. ST	RESET
R/S/F	REVERSE Ⓗ/STOP Ⓜ/FORWARD Ⓛ
RCH [H]	Rch Ⓗ
REC 12V	RECORDING 12V
REC CHROMA	RECORDING CHROMINANCE SIGNAL
REC H	RECORDING Ⓗ
REC IN	RECORDING INPUT
REC OUT [L]	RECORDING OUTPUT Ⓛ
REC START	RECORDING START
REC VR [C]	RECORDING VOLUME (COMMON)
REC VR [L]	RECORDING VOLUME (L)
REC VR [R]	RECORDING VOLUME (R)
REC Y	RECORDING LUMINANCE SIGNAL
REC [H]	RECORDING Ⓗ
REC. C	RECORDING CHROMINANCE SIGNAL
REC. Y	RECORDING LUMINANCE SIGNAL
REC/EE CTL	RECORDING/EE CONTROL
REEL-T	REEL PULSE (TAKE-UP)
REEL-S	REEL PULSE (SUPPLY)
REGULATOR FILTER	REGULATOR FILTER
RESET	RESET
REV M F/R	REVIEW MOTOR FORWARD/REVERSE
REV M V1	REVIEW MOTOR V1
REV M V2	REVIEW MOTOR V2
REV MOTOR F/R	REVIEW MOTOR FORWARD/REVERSE
REV MOTOR V1	REVIEW MOTOR V1
REV MOTOR V2	REVIEW MOTOR V2
REV MOTOR [+]	REVIEW MOTOR (+)
REV MOTOR [–]	REVIEW MOTOR (+)
REV. M. GND	REVIEW MOTOR GND
RF. CHROMA	RF CHROMINANCE SIGNAL

RF OUT	RF OUTPUT
RF Y	RF LUMINANCE SIGNAL
RF. Y. IN	RF LUMINANCE SIGNAL INPUT
RF. Y. OUT	RF LUMINANCE SIGNAL OUTPUT
ROTAR. SW	ROTARY SW
ROTARY	ROTARY SW
RST	RESET
RST [L]	RESET Ⓛ
Rch/INST	Rch/INSERT
S IN	SERIAL DATA INPUT
S OUT	SERIAL DATA OUTPUT
S-PHOTO	SUPPLY PHOTO TRANSISTOR
S-RL. PLS	SUPPLY REEL PULSE
S. CLK	SERIAL CLOCK
S. CLK/AV	SERIAL CLOCK/AV
S. DATA	SERIAL DATA
S. DATA/A	SERIAL DATA
S. PHOTO	SUPPLY PHOTO TRANSISTOR
S. TAB [L]	SAFETY TAB SW ON Ⓛ
S/P/N	SECAM/PAL/NTSC
SC IN	SERIAL CLOCK INPUT
SC OUT	SERIAL CLOCK OUTPUT
SCK SELECT	SERIAL CLOCK SELECT
SEL OUT [L]	SELECT OUTPUT (L)
SEL OUT [R]	SELECT OUTPUT (R)
SHUTTLE 1	SHUTTLE 1
SIF	SOUND INTERMEDIATE FREQUENCY
SLMUT [H]	INPUT SELECT MUTE Ⓗ
SLNID [+]	SOLENOID (+)
SLNID [–]	SOLENOID (–)
SLW TR. MM	SLOW TRACKING MONO MULTI
SLW TR. REF	SLOW TRACKING REFERENCE VOLTAGE
SNS. GND	SENSOR GND
SOFT [H]	SOFT TAPE PLAY Ⓗ
SOFT [H]/NORMAL	SOFT TAPE PLAY Ⓗ/NORMAL Ⓗ
SOLENOID ON [L]	SOLENOID ON Ⓛ
SP [H]	SP Ⓗ
SP/L/SLP	SP/LP
SSS [L]	SLOW/STILL/STOP
STEREO LED	STEREO LED
STEREO [H]	STEREO Ⓗ
STEREO [L]	STEREO Ⓛ
STOP. PO	STOP POSITION
STOP/5V	STOP POSITION/5V
STOP1/TAPE SEL	STOP1 POSITION/TAPE SELECT
STOP1/PAL:ST	STOP1 POSITION/PAL
STOP2. PO	STOP 2 POSITION
STOP2/S-TAB	STOP 2 POSITION/SAFETY TAB SW
STREO [H]	STEREO Ⓗ
SUB BIAS	SUB BIAS
SUB. SW	SUB SW
SVHS CAS [L]	S-VHS CASSETTE Ⓛ
SW. 5. DET	SW 5V DETECT
SYNC [L]	SYNC Ⓛ
SYSCON 5V	SYSTEM CONTROL 5V
SYSTEM	SYSTEM SW
T-PHOTO	TAKE-UP PHOTO TRANSISTOR
T-RL. PLS	TAKE-UP REEL PULSE
T. BUSCLK	TIMER BUS CLOCK
T. BUSLSN	TIMER BUS LISTEN
T. BUSTLK	TIMER BUS TALK
T. END [L]	TAPE END Ⓛ
T. PHOTO	TAKE-UP PHOTO TRANSISTOR
TAPE END [L]	TAPE END Ⓛ
TAPE END [L]/CAM	TAPE END Ⓛ/CAMERA PAUSE
TEST	TEST MODE
TPZ	TRAPEZOIDAL WAVE CIRCUIT
TRIC [L]	TRIC PLAY Ⓛ
TRICK [L]	TRIC PLAY Ⓛ
TRK. ENV	AUTO TRACKING ENVELOPE DETECT
TU. AUDIO	TUNER AUDIO
TU. GND	TUNER GND
TU. V. IN	TUNER VIDEO SIGNAL INPUT
TU. VIDEO	TUNER VIDEO
TUN NOR IN	TUNER NORMAL INPUT
TUN R	TUNER AUDIO (R)
TUN. AUDIO IN	TUNER AUDIO INPUT
TUNER 12V	TUNER 12V
TUNER L	TUNER AUDIO (L)
TUNER V IN	TUNER VIDEO SIGNAL INPUT
TUNER [L]	TUNER AUDIO (L)
TUNER [N]	TUNER AUDIO (NORMAL)
TUNER [R]	TUNER AUDIO (R)
TUNER. 12	TUNER 12V
TUOFF [H]	TUNER OFF Ⓗ
TV. AUDIO	TV AUDIO
TV/VTR	TV/VTR
TXTON [L]	TEXT ON Ⓛ
U. REG45V	UNREGULATOR 45V
UNREG	UNREGULATOR
UNREG19V	UNREGULATOR 19V
V. REF	REFERENCE VOLTAGE
V. EE [H]	VIDEO EE Ⓗ
V. EE [L]	VIDEO EE Ⓛ
VCO REF	REFERENCE OSCILLATER
VD. IN	VIDEO SIGNAL INPUT
VD. OUT	VIDEO SIGNAL OUTPUT
VIDEO EE [L]	VIDEO EE Ⓛ
VIDEO IN	VIDEO SIGNAL INPUT
VIDEO OUT	VIDEO SIGNAL OUTPUT
VM	MOTOR VOLTAGE
VM DOWN [L]	MOTOR VOLTAGE DOWN Ⓛ
VSS	VERTICAL SYNC SIGNAL
VTR [H]	VTR Ⓗ
VTR. 12V	VTR 12V
X IN	OSCILLATOR INPUT
X OUT	OSCILLATOR OUTPUT

MAIN C.B.A.	
Transistor	
Q1001	A-3
Q1003	D-2
Q1004	D-3
Q1005	A-2
Q1007	A-1
Q1180	D-1
Q1181	D-1
Q1200	C-2
Q3001	F-8
Q4003	E-5
Q4004	E-4
Q4005	E-4
Q4006	E-4
Q6001	C-2
Q6002	C-7
Q7701	C-4
Transistor & Resistor	
QR1001	B-3
QR3003	D-6
QR3004	D-6
QR3008	C-8
QR3011	C-6
QR3501	D-5
QR3502	D-5
QR4001	E-5
QR4002	D-7
QR4004	D-6
QR4005	D-6
QR4006	D-6
QR4502	E-6
QR4505	D-3
QR6001	C-3
Integrated Circuit	
IC1001	B-2
IC1150	D-1
IC1200	C-2
IC2501	E-3
IC3001	C-7
IC3501	E-5
IC6001	C-3
IC6002	B-6
IC6003	B-4
IC6004	A-6
IC6005	C-3
IC7501	A-5
Test Point	
TL2015	D-4
TL3001	C-7
TL6001	B-3
TL6010	D-3
TL6012	B-4
TL6013	A-6
TL6090	D-3
TL7509	B-3
TL7510	B-3
TW1004	B-8
TW2001	F-6
TW2002	F-2
TW3001	F-5
TW3030	F-5
TW3090	F-7
Connector	
P1102	F-1
P2001	E-4
P2002	C-3
P2501	F-3
P3501	E-6
P4001	F-4
P4002	D-7
P6001	F-4
TU7601	E-8

ADDRESS INFORMATION

SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART (SP MODE)

Ref. No.	IC2501																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	15.1	15.1	15.3	1.0	5.0	1.1	1.1	0.5	2.5	1.4	0	3.8	3.8	3.8	0	15.1				
PLAY	15.0	15.0	15.3	1.0	5.0	1.1	1.1	0.5	2.4	1.4	0	3.8	3.8	3.8	0	15.0				
REC	15.0	15.0	15.3	1.0	5.0	1.1	1.1	0.5	2.4	1.4	0	3.8	3.8	3.8	0	15.0				
F.F	14.7	14.7	15.1	1.0	5.0	1.1	1.1	0.5	2.4	1.4	0	3.8	3.8	3.8	0	14.7				
REW	14.7	14.7	15.1	1.0	5.0	1.1	1.1	0.5	2.4	1.4	0	3.8	3.8	3.8	0	14.7				
Ref. No.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	5.0	0	5.2	3.9	5.0	5.0	0	0.2	5.0	3.4	0	0	0	4.7	4.5	4.5	3.9	3.9	0	0
PLAY	5.0	0	2.5	2.5	5.0	5.0	0	0.2	0	3.1	0	0	0	4.6	4.4	4.4	3.9	3.8	0	0.4
REC	5.0	0	2.5	2.5	5.0	5.0	0	0.2	5.0	3.1	0	0	0	4.6	4.4	4.4	3.8	3.8	0	0.4
F.F	5.0	0	2.5	2.5	5.0	5.0	0	0.2	5.0	2.7	0	0	0	4.6	4.2	4.2	3.7	3.6	0	4.8
REW	5.0	0	2.5	2.5	5.0	5.0	0	0.2	5.0	2.7	0	0	0	4.6	4.2	4.2	3.7	3.6	0	4.8
Ref. No.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0	0	2.5	0	5.0	0	0	0	2.5	5.0	5.0	0	0	2.5	0	5.0	2.6	2.6	0	2.6
PLAY	4.0	0	2.5	0	5.0	0	0	0	2.5	5.0	5.0	0	2.5	2.4	0	5.0	2.6	2.6	0	2.6
REC	4.0	0	2.5	0	5.0	4.9	5.0	0	2.5	0.2	0.2	0	2.5	2.4	0	5.0	2.6	2.6	0	2.6
F.F	4.9	0	2.5	0	5.0	0	0	0	2.5	5.0	5.0	0	5.0	2.4	0	5.0	2.6	2.6	0	2.6
REW	4.9	5.0	2.5	0	5.0	0	0	0	2.5	5.0	5.0	0	5.0	2.4	0	5.0	2.6	2.6	0	2.5
Ref. No.	IC6001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	2.7	5.0	0	0	0	5.0	1.9	0	1.9	1.7	5.1	2.5	2.6	0.7	0.1	0	0	0	4.3	0
PLAY	2.7	5.0	0	0	0	5.0	1.9	0	1.9	2.3	5.1	2.5	2.6	1.1	0.1	0	0	0	4.3	0
REC	2.7	5.0	0	0	0	5.0	1.9	0	1.9	1.7	5.1	2.5	2.6	1.2	0.1	0	0	0	4.3	0
F.F	2.7	5.0	0	0	0	5.0	1.9	0	1.9	2.1	5.1	2.5	2.6	0.9	0.3	0	0	0	3.8	0
REW	2.7	5.0	0	0	0	5.0	1.9	0	1.9	2.1	5.1	2.5	2.6	0.4	0.2	0	0	0	3.8	0
Ref. No.	IC6001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	0	0.1	0	0	1.0	0	2.5	2.5	2.5	2.5	0	2.5	5.0	2.5	2.5	2.5	0	4.9	1.6	0
PLAY	5.0	0.1	0	0	1.0	0	2.5	2.5	2.5	2.5	0	2.5	5.0	2.5	2.5	2.5	0	4.9	1.6	0
REC	0	0.1	0	0	1.0	0	2.5	2.5	2.5	2.5	0	2.5	5.0	2.9	2.5	2.5	0	4.9	1.6	0
F.F	0	0.1	0	0	1.0	0	2.5	2.5	2.5	2.5	0	2.5	5.0	2.5	2.5	2.5	0	0	1.6	0
REW	0	0.1	0	0	1.0	0	2.5	2.5	2.5	2.5	0	2.5	5.0	2.5	2.5	2.5	0	0	1.6	0
Ref. No.	IC6001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	0	0	0	0	5.0	4.8	5.0	2.4	1.6	5.0	0	0	0	0	0	0	5.0	0	0	1.7
PLAY	0	0	0	0	5.0	4.8	5.0	2.4	4.0	5.0	0	0	0	0	0	0	5.0	2.5	0	5.0
REC	0	0	0	0	5.0	4.7	5.0	2.4	2.2	5.0	0	0	0	0	0	0	5.0	2.5	0	0
F.F	0	0	0	0	5.0	4.8	5.0	2.4	1.0	5.0	5.0	0	0	0	0	0	5.0	0	0	2.6
REW	0	0	0	0	5.0	4.8	5.0	2.4	3.3	5.0	5.0	0	0	0	0	0	5.0	0	0	3.7
Ref. No.	IC6002										IC6003									
MODE	1	2	3	4							1	2	3	4						
STOP	1.1	2.3	5.2	0							0	1.1	3.9	0						
PLAY	1.1	2.3	2.5	0							0	1.1	2.5	0						
REC	1.1	2.3	2.5	0							0	1.1	2.5	0						
F.F	1.1	2.3	2.5	0							0	1.1	2.5	0						
REW	1.1	2.3	2.5	0							0	1.1	2.5	0						
Ref. No.	IC6004										IC6005									
MODE	1	2	3								1	2	3	4	5					
STOP	5.0	0	5.0								5.0	5.0	0	0	0					
PLAY	5.0	0	5.0								5.0	5.0	0	0	0					
REC	5.0	0	5.0								5.0	5.0	0	0	0					
F.F	5.0	0	5.0								5.0	5.0	0	0	0					
REW	5.0	0	5.0								5.0	5.0	0	0	0					

SYSTEM CONTROL & SERVO TRs DC VOLTAGE CHART (SP MODE)

Ref. No.	Q6001			Q6002			Q7701			QR6001								
MODE	E	C		E	C		E	C	B	E	C	B						
STOP	4.6	0		5.0	0		2.6	0	1.9	0	12.9	0						
PLAY	4.8	0		5.0	0		2.6	0	1.9	0	12.8	0						
REC	4.6	0		5.0	0		2.6	0	1.9	0	12.8	0						
F.F	4.7	0		5.0	0		2.6	0	1.9	0	12.8	0						
REW	4.7	0		5.0	0		2.6	0	1.9	0	12.0	0						

<table>
<tr><th>Pin No.</th><th>In/Out</th><th>Port Name</th><th>Function</th></tr>
<tr><td>1</td><td>I</td><td>P.FAIL.IN(L)</td><td>Power failure detection input.</td></tr>
<tr><td>2</td><td>O</td><td>SP(L)</td><td>This port supplies low during SP mode.</td></tr>
<tr><td>3</td><td>I</td><td>S.REEL.PULSE</td><td>Supply reel pulse input.</td></tr>
<tr><td>4</td><td>I</td><td>T.REEL.PULSE</td><td>Take-up reel pulse input.</td></tr>
<tr><td>5</td><td>I</td><td>I.R.</td><td>Remote Controller pulse input.</td></tr>
<tr><td>6</td><td>O</td><td>OSD REC1</td><td>OSD REC control output.</td></tr>
<tr><td>7</td><td>O</td><td>OSD REC1</td><td>OSD REC control output.</td></tr>
<tr><td>8</td><td>O</td><td>FM MUTE(H)</td><td>Hi-Fi audio mute control output.</td></tr>
<tr><td>9</td><td>O</td><td>VIDEO EE(H)</td><td>EE:Low
VV:High</td></tr>
<tr><td>10</td><td>O</td><td>FL DRV CS(L)</td><td>FIP driver chip selection.</td></tr>
<tr><td>11</td><td>O</td><td>SQ PB(H)</td><td>This port is high during S-VHS playback mode.</td></tr>
<tr><td>12</td><td>O</td><td>VTR(H)/TV(L)</td><td>VTR/TV mode switching control.</td></tr>
<tr><td>13</td><td>O</td><td>CH H/L</td><td>Channel switching control.</td></tr>
<tr><td>14</td><td>O</td><td>IC.CLK</td><td>FIP driver serial clock output.</td></tr>
<tr><td>15</td><td>I</td><td>IC.LSN</td><td>FIP driver serial data input.</td></tr>
<tr><td>16</td><td>O</td><td>IC.TLK</td><td>FIP driver serial data output.</td></tr>
<tr><td>17</td><td>O</td><td>IIC.TALK/LSN</td><td>IIC serial data in/output</td></tr>
<tr><td>18</td><td>O</td><td>IIC.CLK</td><td>IIC serial clock output</td></tr>
<tr><td>19</td><td>I</td><td>N.C.</td><td>Not used</td></tr>
<tr><td>20</td><td>O</td><td>HALF WAVE(H)</td><td>Capstan torque switching control.
1. FF/REW Mode
Capstan rotation speed is 1300 rpm or more without VHS-C cassette:High
Capstan rotation speed is less than 1300 rpm without VHS-C cassette:High impedance
VHS-C cassette:High imedance
2. Except FF/REW Mode:High impedance</td></tr>
<tr><td>21</td><td>O</td><td>CURRENT LIMIT</td><td>Capstan motor current limitter output.</td></tr>
<tr><td>22</td><td>O</td><td>CAP R/F</td><td>Capstan rotation direction control.
Reverse : High
Forward : Low</td></tr>
<tr><td>23</td><td>O</td><td>VIDEO H.SW</td><td>Video head switching signal output.</td></tr>
<tr><td>24</td><td>O</td><td>ART V/H/N</td><td>This port supplies artificial vertical sync signal to stabilize the picture in special playback mode.</td></tr>
<tr><td>25</td><td>I</td><td>RESET(L)</td><td>This port is low during reset.</td></tr>
<tr><td>26</td><td>O</td><td>D.A.REC(H)</td><td>Audio signal recording on/off control.</td></tr>
<tr><td>27</td><td>O</td><td>D.REC(H)</td><td>Video signal recording on/off control.</td></tr>
<tr><td>28</td><td>O</td><td>CUR. EMPH(H)</td><td>This port supplies high during a certain time from starting the recording.
<table>
<tr><th>REC MODE</th><th>OUTPUT TIMING</th><th>REC MODE</th><th>OUTPUT TIMING</th></tr>
<tr><td>NTSC 2H</td><td>6 sec</td><td>PAL 3H</td><td>9 sec</td></tr>
<tr><td>NTSC 4H</td><td>12 sec</td><td>---</td><td>---</td></tr>
<tr><td>NTSC 6H</td><td>18 sec</td><td>PAL 6H</td><td>18 sec</td></tr>
</table></td></tr>
<tr><td>29</td><td>O</td><td>128Hz</td><td>Oscillator output for main clock adjustment.</td></tr>
<tr><td>30</td><td>O</td><td>FULL ERASE(L)</td><td>Full erase on/off control.
ON:Low
OFF:High</td></tr>
<tr><td>31</td><td>O</td><td>BIAS(L)</td><td>Audio signal recording on/off control.</td></tr>
<tr><td>32</td><td>O</td><td>A H SW</td><td>Audio head switching signal output.</td></tr>
<tr><td>33</td><td>O</td><td>CAP ET</td><td>Capstan torque control.</td></tr>
<tr><td>34</td><td>O</td><td>CYL ET</td><td>Cylinder torque control.</td></tr>
<tr><td>35</td><td>I</td><td>N.C.</td><td>Not used</td></tr>
</table>

Pin No.	In/Out	Port Name	Function
36	-	VDD	Digital 5V
37	O	14.32MHz OUT	Oscillator output.
38	I	14.32MHz IN	Oscillator input.
39	-	GND	GND
40	I	32KHz IN	Oscillator input.
41	O	32KHz OUT	Oscillator output.
42	I	CLK SLCT	Operating mode select.
43	O	MESECAM	This port supplies high during Superimpose OSD is displayed in MESECAM mode.
44	O	PICTURE MODE1	Picture mode control output.
45	I	V SYNC	Analogue V-sync input.
46	I	PICTURE MODE2	Picture mode control input.
47	O	CV OUT	Composite video signal output.
48	-	GND	GND
49	I	CV IN	Composite video signal input.
50	I	CV IN2	Composite video signal input.
51	-	+5V	+5V
52	I	AFCC	AFC low pass filter output.
53	O	AFCLPF	AFC low pass filter input.
54	O	FSC	4 muliply low pass filter output.
55	I	FSCLPF	4 muliply low pass filter input.
56	O	SECAM MUTE	SECAM chroma signal mute control output.
57	O	SECAM(L)	This port supplies low during SECAM tape playback.
58	O	CHARA+HEM	OSD digital data output.
59	O	I/DK/BG/M	I/M:Low BG/DK:High Impedance
60	O	CHARA	OSD digital data output.
61	O	AVPB(H)	This port supplies high during OSD MENU mode and VV mode.
62	O	AUDIO MUTE(H)	Audio mute control output.
63	O	PAL 9H(H)	This port supplies high during recording in EP(9H) mode.
64	I	GND	GND
65	I	CYL PFG	Cylinder PFG input.
66	I	GND	GND
67	O	CAP FG OUT	Capstan FG output.
68	I	CAP FG	Capstan FG input.
69	O	OREF	Op amp output for 1/2 VDD reference.
70	I	IREF	Op amp input for 1/2 VDD reference.
71	-	GND	GND
72	I	CTL AMP REF	Control amp reference input.
73	-	+5V	+5V
74	I/O	CTL HEAD(+)	Control signal (+) in/output.
75	I/O	CTL HEAD(-)	Control signal (-) in/output.
76	O	PB CTL OUT	Control amp output.
77	I	NC	Not used
78	O	EX FF/REW(L)	This port supplies low during except FF and REW modes.
79	I	MODEL CODE1	Model code input.
80	I	MODEL CODE2	Model code input.
81	I	NC	Not used
82	O	LOAD(H)	This port supplies high during the mechanism is loaded.
83	O	UNLOAD(H)	This port supplies high during the mechanism is unloaded.
84	I	DEW SNS	Dew detection input.